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ABSTRACT

Grades or Ages: Grades 4-6. Subject Matter: Health Education (includes chapters covering the following: (a) health status; (b) nutrition; (c) sensory Perception; (d) dental health; (e) disease prevention and control; (f) smoking and health; (g) alcohol education; (h) drug education; (i) personality development; (j) human sexuality; (k) family life education; (l) heredity and environment; (m) environmental and public health; (n) consumer health; and (o) safety, first aid, and survival education). Organization: Each chapter is broken down into an overview, a list of objectives, a list of major concepts, a content outline, a list of learning and evaluative activities, and a list of resources. Instructional materials are listed for each chapter as references. No provision for student assessment is indicated. No options are listed. (PB)

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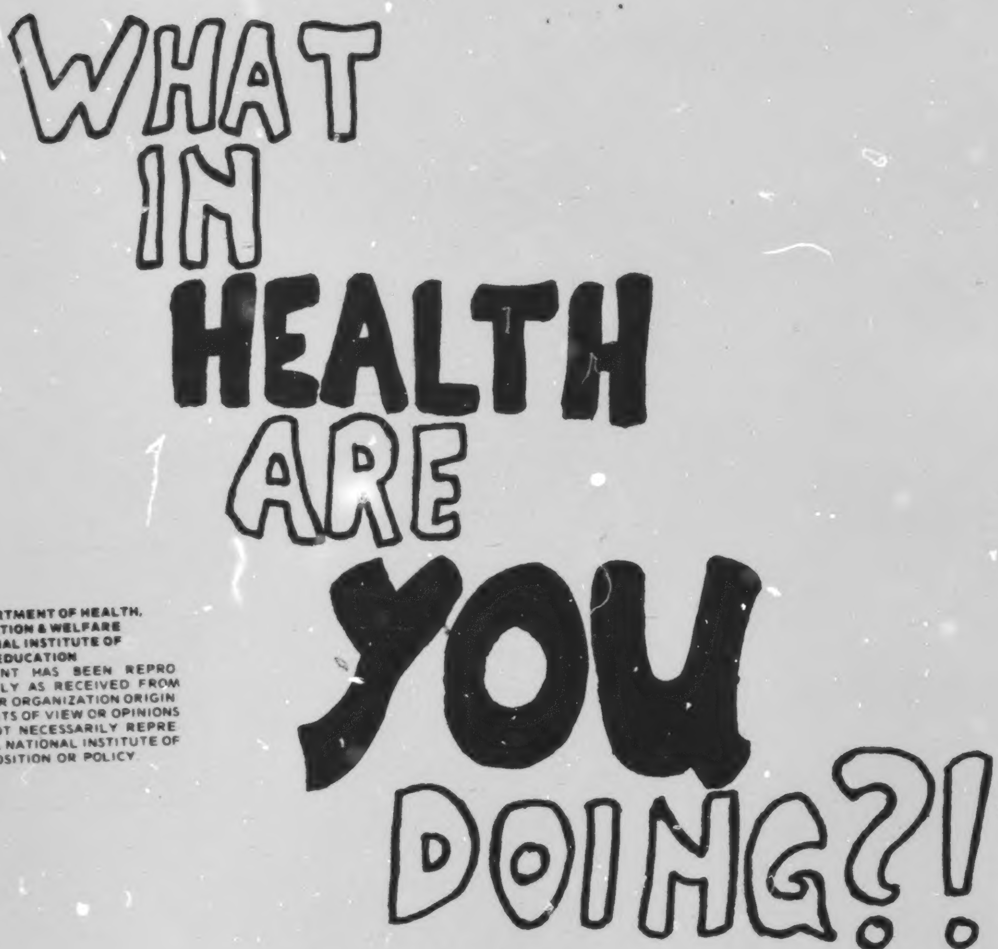

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Cover Credits:

The theme of this Health Curriculum Guide Cover is growth. Health is physical, mental, emotional, social, and spiritual growth encompassing every phase of an individual's life. Health instruction, an expanded area of our school curriculum, is learning this growth and therefore helping to meet the needs of each student.

The cover for this guide was designed and drawn by Diane Carloni. Diane is a 1974 graduate of Homer Central High School. She has taken some art instruction as a student at Homer. Diane will attend S.U.N.Y. at Oswego in the fall.

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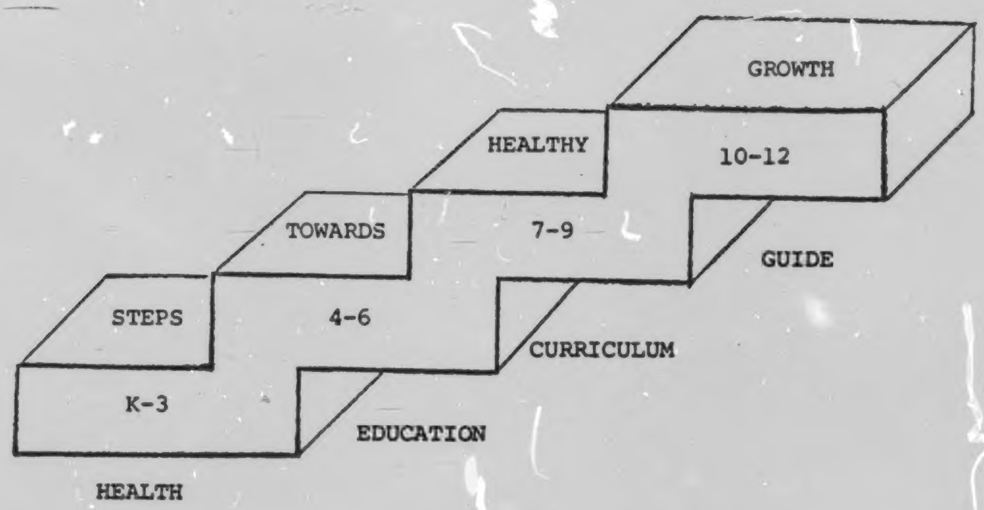
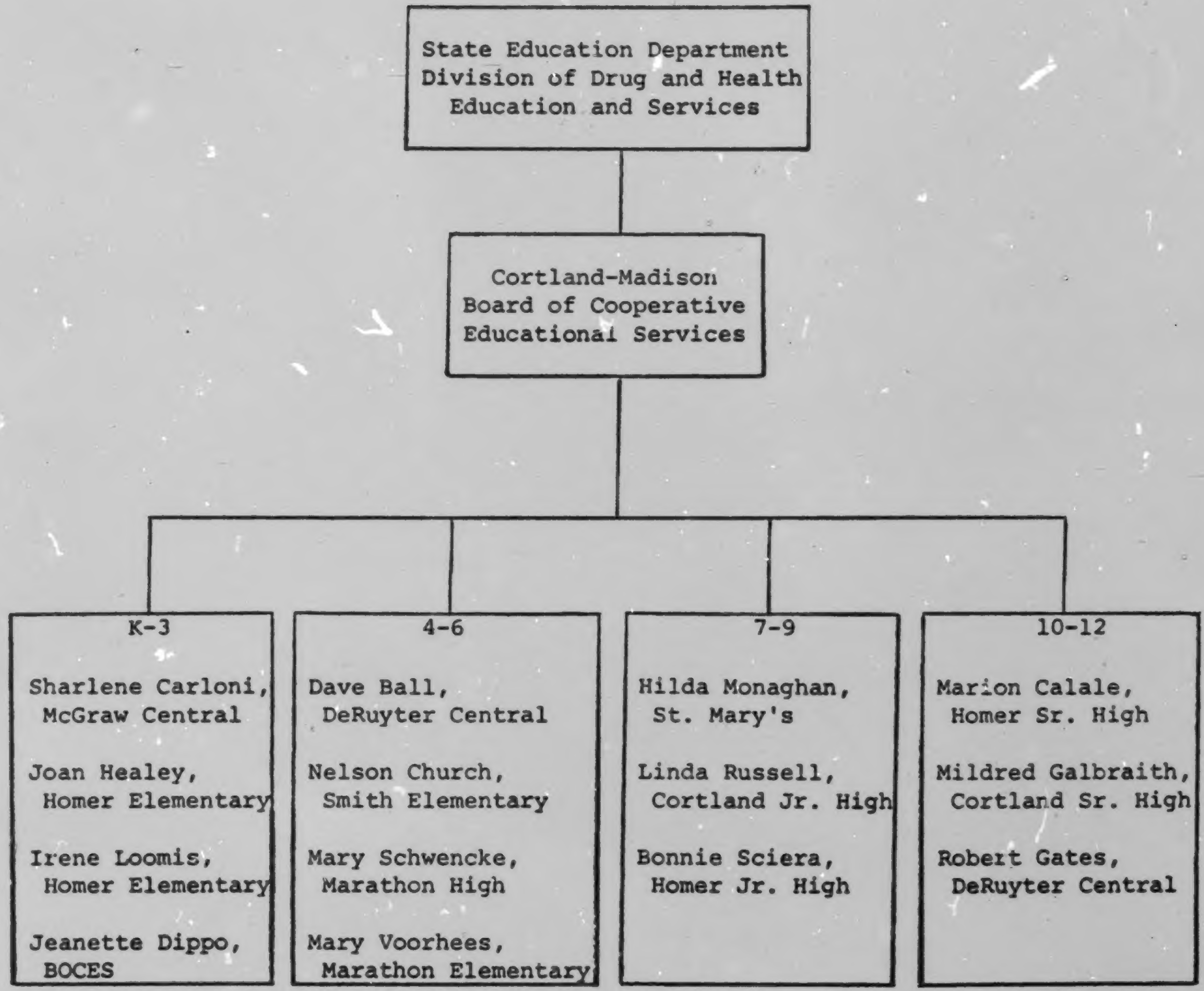


Grades 4-6

First Edition
January 1975

Curriculum Development Committee



State Education Department
Division of Drug and Health
Education and Services

Cortland-Madison
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BOARD OF COOPERATIVE EDUCATIONAL SERVICES

McEVOY EDUCATIONAL CENTER
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CORTLAND, NEW YORK 13045

January 2, 1974

Dear Educators:

HEALTH
True or False

______ Commercial medicines can be used safely if the dose and content are on the label.

______ The use of "pep" pills or sleeping pills does not require medical supervision.

______ Legislation guarantees the reliability of any advertised medicine.

______ Toothpaste is effective in killing germs in the mouth and in preventing cavities.

______ Fluoridation purifies water for drinking purposes.

______ Food should never be stored in an opened can, even in a refrigerator.

In a nationwide survey, 70% of high school students endorsed the above statements. Yet all are false. This is an example of the serious misconceptions about health which cry out for modernized school health instruction. So concludes a study sponsored by the NEA, AMA, Office of Education, U.S. Public Health Service, and National Congress of Parents and Teachers.

We, in the schools of Cortland County, are fortunate to have for the past two years, a very dynamic program of Health and Drug Coordination. These Curriculum Guidelines which have been developed through this dynamic program of Health and Drug Coordination, will help to provide better Health Education in our County and thus help to eliminate the deficiency in health education as shown by the previous quiz.

We appreciate the cooperation and coordination that has taken place to make the Health Program within the Cortland County Schools the outstanding one that it now is.

Walter G Franklin
Walter G. Franklin/jb
District Superintendent

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6

Forward

The end-product of the two-week summer curriculum construction workshop funded by the Division of Drug and Health Education and Services, SED and sponsored by the Cortland-Madison BOCES reflects the consorted efforts of many persons. The knowledge and expertise of the individual curriculum developers/writers are most worthy of recognition. Other published/printed materials served as foundations for the curriculum subsequently developed. Most notable among these are:

1. Health Education Guide: A Design for Teaching
   Morris Barrett, M. P.H.
   Health Education Associates, Ltd.
   Box 61
   Wynnewood, Pennsylvania 19096

2. School Health Education Study
   1201 16th Street, N.W.
   Washington, D.C. 20036

3. The Healthful Living Program
   Laidlaw Brothers
   River Forest, Illinois 60305

4. Health and Growth Series
   Scott, Foresman and Company
   Glenview, Illinois 60025

Individual New York State Strand Prototype recommendations and Computer-Based Resource Unit suggestions were prime considerations in placement of Behavioral Objectives, Concepts and Content materials.

Introduction

The specific goals of a health education program can be as many and varied as life itself. However, optimal health is dependent upon the interactions of knowledge, attitudes and behavior. The health education program should establish an approach to concepts, generalizations, understandings, facts, values and applications, basic skills, and decision-making processes which can serve as keys to good physical, mental, social, emotional, and spiritual well-being. All participants in the school health education program, including teachers and administrators as well as students, should be assisted in working towards:

1. Acquiring an understanding of his own physical, mental and social health.
2. Developing responsibility toward his own and community health.
3. Acquiring an understanding that the goals of good health result from individual practices and maintenance of those mental, physical, and social habits selected as desirable and good by society and the individual.
4. Acquiring an appreciation of the value of a healthful life.
5. Encouraging systematic development of individual human potential for health, growth and happiness.

There are certain elements necessary for success of a health education program that cannot be written into a curriculum guide. These essential elements come from within the individuals responsible for implementing and carrying out the program:

1. Commitment on the part of administrators and teaching staff to a belief in the value and potential of health education is most important.
2. In view of the definition of health in terms of its psychological physiological, sociological aspects, there needs to be, more than in any other curriculum area, a willingness to work together and lend support in setting up and maintaining a good school health education program - one which is prevention-oriented and clearly above and beyond the minimal requirements for drug and health education as delineated in the Rules of the Board of Regents and the Regulations of the Commissioner of Education.
3. It is possible to improve the classroom experiences of health education students through sincere desire by all directly involved to utilize to the greatest advantage appropriate resources (including those of a human nature) and/or other quality teaching aids, materials and devices which are made available.
4. Support for the concept of student participation and involvement in their own learning is a most meaningful part of a sound health education program. Provision should be made for a diversity of learning approaches including extension of learning into multi-community settings.

A Statement on Philosophy of the School Health Program

Health is an integral aspect of every phase of life. Without health man cannot function effectively in his society. Health can, therefore, be considered not only biological, but psychological and sociological well-being as well.

The School Health Program, which includes all functions and services designed to promote the optimum health in each child, is a flexible blueprint aimed at assisting students in developing into independent, responsible adults. It would seem that no one, be it student or adult, can be independent and responsible unless he is equipped with the health necessary to be so; health that is, in part, imparted by knowledge and understanding of the forces which work in his environment and control his physical and emotional well-being. It is for this reason that, with the guidance of State legislation and the local Board of Education, the School Health Program endeavors to supplement parental responsibility in this realm.

As a result of imparted knowledge, understandings, and good health habits and attitudes, we would hope to kindle, promote, and help each child achieve a state of physical, social, emotional, intellectual and spiritual well-being that would be conducive to such academic learning as the student was capable of acquiring. In short, we aim at helping the student to "become all he is capable of being." This is based on the assumption that health, not being an end in itself, is a means to an end ---- a happy, fruitful life.

The School Health Program itself consists of three main synthetic divisions which should exist in name only since their interworkings are essential to a successful program - Health Services, Healthful School Environment, and Health Instruction. The effective and flexible program must originate with the needs and interests of the individual. From this basis, it should continue to meet the needs of the family, community, nation, and the world...

Implementation of a School Health Program

Whatever the organizational plan, the only significant test of its worthwhileness is the effect which it brings to bear on the total educational program or the opportunity which it affords children to learn.

When the School Health Program is being established or adjusted, certain guidelines or basic principles, if adhered to, will help to insure its success. These are as follows:

1. Develop it gradually rather than superimposing it abruptly.
2. Though idealistic in its announced goals, it is realistic in its current performance.
3. It fosters continuous communication between all school staff members.
4. Special facilities are at its disposal.
5. It is interwoven with the instructional program.
6. It brings its services to every student, not just to those in distress.
7. It plays an important role in the school's public relations program.
8. It is constantly engaged in a process of self-examination.
9. It insures a balance in services it offers pupils.

Once the program is ready to be established, there are certain general fundamentals which should be considered in its administration:

1. There should be centralized control to assure efficient and effective functioning of the total program.
2. Adequate budgeting of finances to provide necessary salaries, supplies, and equipment should be carried out.
3. There needs to be proper coordination of various divisions, departments, and areas.
4. Selection of teachers and health specialists should be based on the best qualifications for the particular school and community.
5. Allotment of sufficient time in the school curriculum for the health program to function effectively is a necessity.
6. Definite assignment of duties and responsibilities to teachers, health specialists, and administrative assistants is a must.
7. Organization of a health teaching program should be on a school-wide basis.
8. Consideration of legal provisions, state and local laws, and requirements pertaining to and affecting the School Health Program should not be neglected.
9. Provisions should be made for assuring maintenance of the school plant and facilities in a sanitary and hygienic manner.
10. Special measures are necessary to recognize and provide for individual physical differences of students.
11. Methods and plans for safeguarding the health of teachers, as well as of students, should be an integral part of the plan.
12. There should be constant and thorough evaluation of the total School Health Program.

Curriculum Overview

The overall goal of this curriculum guide is to assist in developing individuals with the competency to function well in society and the ability to cope with the social, physical, emotional, intellectual, and spiritual dimensions of man. This goal seeks to aid in the discovery of self in relation to others in society and in the world and to implement the concept that decision-making is best where each individual has adequate information and experiences upon which to base his decisions. Decision-making is a cumulative process which results from a growing awareness of self and a growing awareness of the healthful alternatives which the health education process provides.

This guide is a vehicle for preventive education, acknowledging that a primary task of the school is development of positive self-concepts, helping students obtain control over their own lives, and maximizing their health potentialities. It offers a curriculum which helps each individual examine the meaning and value he desires health to have in his life and the life style he envisions necessary to implement his desires and values. It represents curriculum designed to fulfill personal needs and interests via being meaningful and relevant to students preparing to live healthful, productive and rewarding lives.

This rationale is based on concepts which provide for increasing levels of information and experiences related to physical, psychological, and social development as grade level increases. There is decreasing breadth, but greater concentration of information and experiences in various areas of health education as the educational and maturity levels increase providing a continuous and cumulative effect rather than a disjointed one.

Health Education should:

1. Represent a major part of a life-long educational process.
2. Exist for benefit of all students.
3. Represent a process that begins informally during pre-kindergarten years and continues throughout adulthood.
4. Involve total school/community efforts.
5. By its basic nature, revolve around developing a meaningful, satisfying and healthy life.

This particular guide represents one of the four levels of a planned, unified and comprehensive K-12 health education program designed to:

1. Meet the needs of all students.
2. Be sequential, building on developmental tasks at each level.
3. Be flexible in order to facilitate implementation on a county-wide basis.
4. Include behavioral objectives and learning experiences for assisting in the decision-making process.
5. Be easily updated, due to its format, via replacement of pages upon their obsolescence.

Each topical area or unit consists of five basic parts:

1. Overview and Objectives
2. Concepts
3. Content Outline
4. Learning and Evaluative Activities
5. Resources

The unit overview gives a brief orientation to the philosophy regarding the unit. The outline of behavioral objectives reflects the cognitive, affective and action-oriented domains. They signify specific ways students should be able to think, feel, and act after completion of the unit of study.

The concepts and supporting content outlines provide necessary background material for behavioral change. Coordinated with these are suggested resources and learning and evaluative activities from which student experiences may be selected in order to promote desired behavioral changes. The concepts, content outlines, resources, and activities should offer many concrete suggestions to individual teachers for adaption to varied and different teaching needs and situations. However, since there is never enough class time to learn everything about living healthfully, the ultimate decisions regarding specific content inclusion, exact scope and sequence of concepts, and particular student experiences are reserved for the individual classroom teacher.

The curriculum guide contained herein is specifically designed to be descriptive, adaptable and flexible in order to allow for variations in local situations, within particular school systems and communities, and among specific students. Content and process are closely interrelated in health education. Their interaction should lead to the development of responsible decision-making skills which help individuals to use and apply what is learned no matter how often knowledge may change. In essence, there is a need to strive toward conceptualization and internalization of learning rather than pure memorization and fragmentation.

It is with these thoughts in mind that it is reiterated that as much or as little of each of the components of a unit may be used by a teacher as deemed appropriate. This guide is to serve as a model from which individual schools/ teachers can build, with the aid of their own students and their own health education programs, taking into consideration the specific needs and interests of their particular pupils and any unique circumstances.

HEALTH EDUCATION CURRICULUM

CONTENT OVERVIEW

K-3	4-6	7-9	10-12
Strand I Physical Health Health Status Nutrition Sensory Perception Dental Health Disease Prevention and Control	Strand I Physical Health Health Status Nutrition Sensory Perception Dental Health Disease Prevention and Control	Strand I Physical Health Nutrition Sensory Perception Dental Health Disease Prevention and Control	Strand I Physical Health Nutrition Disease Prevention and Control
Strand II Sociological Health Problems Chemical Substances	Strand II Sociological Health Problems Smoking and Health Alcohol Education Drug Education	Strand II Sociological Health Problems Smoking and Health Alcohol Education Use and Misuse of Chemical Substances	Strand II Sociological Health Problems Tobacco Alcohol Drugs
Strand III Mental Health Personality Development, Sexuality, Family Life Education, Death Education	Strand III Mental Health Personality Development Human Sexuality Family Life Education Heredity and Environment	Strand III Mental Health Identity and Human Sexuality	Strand III Mental Health Personality Development Family Life and Sexuality
Strand IV Environmental and Community Health Environmental and Public Health Consumer Health	Strand IV Environmental and Community Health Environmental and Public Health Consumer Health	Strand IV Environmental and Community Health Environmental Health Consumer Health	Strand IV Environmental and Community Health Environmental, Public and World Health Consumer Health
Strand V Education for Survival Safety Education	Strand V Education for Survival Safety, First Aid, and Survival Education	Strand V Education for Survival Safety First Aid	Strand V Education for Survival Safety, First Aid, Survival Education

HEALTH STATUS

OVERVIEW

Young people need information to satisfy their curiosity about their bodies; they need to understand that health is concerned with how we look, feel and act and that there are many ways to measure the state of a person's health.

Pupils can be helped to achieve and maintain lasting fitness through sound programs of health education and physical education, based on developmental activities. These include sports and recreation in the elementary, junior, and senior high schools and colleges. An effective school program provides basic instruction in vigorous activities and opportunity for participation for all students, regardless of age, sex, and physical ability. It also provides intramural and interschool sports competition at the appropriate levels as well as opportunity for active forms of recreation.

The school health education program must provide knowledge and understanding based on scientific facts and principles in order to develop desirable health attitudes and behavior for the promotion of physical fitness. Success comes only when the student chooses to participate in individually suitable school sports and activity programs and when the student, and later adult, participate in vigorous recreational programs. Each individual should learn to enjoy taking part in vigorous exercise appropriate to age and general ability.

Pupils need to develop awareness of the fact that no one person, by himself, can do all the things that need to be done to promote good health. Community health workers can provide many needed or desired services

OBJECTIVES

Suggested Pupil Outcomes:

1. List the basic steps necessary for body fitness.
2. Describe how health status can be evaluated.
3. Describe the roles of various school health personnel in the total school health program.
4. Relate the role of community health personnel in preventing health problems and improving health status.
5. Analyze how the physical, mental, and social dimensions of the individual are related.
6. Define those daily activities which have a positive effect on personal health.

7. Demonstrate that one's physical, mental, and social development is individua[illegible]ed.

8. Describe how growing and developing occurs unevenly for body parts, systems and functions.

9. Compare the role of the school health team with community health personnel in respect to prevention and control of various health problems.

10. Identify appropriate means of assessing mental, physical, and social fitness.

11. Demonstrate a recognition of the value of periodic health assessments through appropriate participation.

12. Evaluate personal health practices as they relate to health status.

13. Contrast patterns of physical, mental, and social development in and among individuals.

1[illegible]. Predict the kind of growth and developmental changes that may occur during adolescence.

MAJOR CONCEPTS

1. Getting a clear picture of oneself will help one to better understand oneself and others.

2. The individual has a definite responsibility for his personal health and fitness.

3. Factual knowledge is essential in making decisions regarding one's health status.

4. It is important for the individual to appreciate, understand and take into careful consideration the findings of the many people concerned with his health status. (Physician, nurse-teacher and dental hygiene teacher, etc.)

5. There are many people in the school family who help the student keep well and contribute to his growth and development.

6. Great differences exist in height, weight and body build among children - all of whom may be quite healthy but growing in the way that is right for them.

7. Physical fitness is well established today as an essential quality for anyone desiring to make the most of himself and his life.

8. Physical fitness includes health practices other than exercise.

9. Participation in a variety of physical activities promotes the development of body symmetry.

10. Social, mental and emotional values may be derived from participation in a variety of physical activities.

11. The health examination is valuable in detecting early signs of defects, disease and growth variations.

12. There are many tests available to help one detect various defects and understand one's health status better.

13. The state of fitness and dynamic body movement can be measured and is significant to health.

14. Physical activity should be planned as part of one's daily routine.

15. There is a positive relationship between practicing desirable health practices and body fitness.

16. The various kinds of fitness are interrelated.

17. Sleep, rest, and relaxation prepare the body for work and play.

18. Engaging in hobbies, or changing one's activities helps one to relax.

19. When posture is good, the bones and muscles are aided in working properly to keep the body in balance.

20. Each individual has a characteristic way of standing, sitting, and walking which is determined by learning and the way his or her body is made.

21. Good body dynamics are important in work and play.

22. The skin and its appendages are often indicators of one's health.

23. Regular bathing removes perspiration, oil, and dirt from the skin.

24. Proper care of the hair keeps it clean, healthy and attractive.

25. Proper care of the nails is important to grooming and the prevention of infection.

CONTENT OUTLINE

I. Appraising a Person's Health
  A. Indicators of positive health behavior
    1. Responsibility to self and others
    2. Responsibility of the classroom teacher
    3. Responsibility of the parent
  B. Personnel interested in the health status of the individual
    1. Health service staff
      a. Physician
      b. Nurse-teacher
      c. Dentist
      d. Dental hygiene teacher
    2. Other school personnel
      a. Psychologist
      b. Guidance counselor
      c. Speech therapist
      d. Reading specialist
      e. Social worker
      f. Attendance teacher
  C. Assessment of health status and physical fitness
    1. Health examinations
    2. Tests and evaluation
      a. Vision screening
      b. Hearing screening
      c. Dental screening
      d. Physical fitness tests
    3. Evaluative checklist of daily living activities

II. A Perspective on Health
  A. Plan
    1. Physical fitness and body dynamics
      a. What is fitness?
      b. What are the body dynamics?
      c. What is interrelatedness of fitness and body dynamics?
      d. Why the need to plan for body dynamics activities?
    2. Proper nutrition
    3. Sleep, rest, and relaxation
    4. Caring for our senses
    5. Avoiding habit-forming and addicting substances
    6. Safety in everyday activities
    7. Caring for the skin, hair, and nails
    8. Good posture habits
      a. Standing
      b. Sitting
      c. Walking
  B. Health status and individual differences
    1. Mental fitness
    2. Physical fitness
    3. Social-emotional fitness

LEARNING AND EVALUATIVE ACTIVITIES

1. Have children devise a checklist for self-evaluation of health. At the end of the unit, have children go over lists again. How would they change it?

2. Have the class develop an inventory of characteristics of a health-educated individual. Include personal living, social relations and relations in the community.

3. Invite a pediatrician and/or psychologist to class to discuss how individuals grow and develop physically and emotionally.

4. Read stories of great Americans who overcame physical handicaps and became an inspiration to others.

5. Discuss some current figures who are accomplishing in spite of handicaps.

6. Discuss the reasons for visits to the physician, dentist, dental hygienist, school nurse and school psychologist.

7. Have the class name and describe other health personnel.

8. Have the class discuss the topic: "Why the individuals concerned with health services are so important to the individual and the community."

9. Have the children do library research or interview a health specialist and report to class. Could be a panel.

10. Discuss the values of an annual health examination.

11. Display doctor's instruments or pictures of them. Let the children listen to the heart and lungs with stethoscope.

12. Report on the function of the skeletal and muscular systems.

13. Review health practices necessary for good health - correction of defects, avoid injury and disease, proper nutrition, proper habits of sleep and rest, and vigorous physical exercise.

14. Explain how muscles develop in size, strength, and efficiency.

15. Discuss the effect of exercise on the heart, circulation and respiration.

16. Discuss the effect of lack of exercise; muscles are meant to be used; with disuse muscles atrophy.

17. Discuss: "How can children and adults get the exercise they need living in this mechanized society."

RESOURCES

Books:

Your Wonderful Body, Robert J.R. Follett; Follett Publishing Company,
Chicago, Illinois, 611
F

What Is A Human, Melvin L. Alexenberg; Benefic Press, Chicago, Illinois,
1964, 612
A

Films:

About the Human Body, BOCES #831-1, 15 minutes

Exploring Your Growth, BOCES #831-52, 11 minutes

Heart: How It Works, BOCES #831-389, 11 minutes

Heart, Lungs, and Circulation, BOCES #831-65, 11 minutes

Hemo, The Magnificent, BOCES #833-2014, 59 minutes

Human Body: Circulatory System, BOCES #832-31, 13 minutes

Human Body: Nervous System, BOCES #832-32, 13 minutes

Learning About Our Bodies, BOCES #831-80, 11 minutes

Mechanics of Life Series:
- Blood and Circulation, BOCES #831-256, 9 minutes
- Bones and Joints, BOCES #831-257, 9 minutes
- Breathing and Respiration, BOCES #831-258, 9 minutes
- Muscles and Movement, BOCES #831-260, 10 minutes

Physical Fitness and Good Health, BOCES #831-192, 10 minutes

Take Joy

NUTRITION

OVERVIEW

Americans have provided themselves an excess of food. So much is available that obesity is a major concern and foods and beverages are advertised on the basis of low-calorie content. As a nation we eat well, but maintaining adequate nutrtion is a major health problem because as individuals we do not!

Without a definite program of nutrition education started at the beginning of their school life, children are apt to confine their food choices to favorite foods. Likewise, children cannot project benefits into the future and so have little concern or appreciation for what the future will bring if they fail to eat properly now. Nutrition education should be stressed to boys as well as girls. The changing status of the family with working mothers and parental sharing of household responsibilities indicates a necessity for eveyone who has influence on children's eating habits to be aware of the implications of good eating patterns. The emphasis and practice of eating and choosing the right foods must be learned. Dietary fads and reducing fads thrive upon inadequate public knowledge and faulty practices.

The school's major nutritional concern is in the promotion of sound dietary habits through stimulating nutritionally-grounded experiences.

OBJECTIVES

Suggested Pupil Outcomes:

1. Differentiate among varieties, forms and sources of food.

2. Compare the relationship between the foods eaten and the body's health, growth and development.

3. Distinguish between those factors which encourage and discourage individuals from eating certain foods.

4. Demonstrate a willingness to eat a variety of foods, both familiar and unfamiliar.

5. Compare the similarities and differences among families relative to the types of foods eaten and the manner in which they are prepared.

6. Analyze the relationships between general physical development and the basic principles of adequate food selection.

7. Develop acceptable criteria in the selection of foods.

8. Cite examples of social and emotional influences on nutritional behavior.

9. Analyze some of the consequences of poor food selection and eating patterns.

10. Develop nutritional practices which enable one to experience satisfactory patterns of growth and development.

11. Describe the importance of food in the development and history of man.

12. Compare the required quantities of nutrients and how they vary for each individual based on his: sex, age, growth, activity, and environment with the understanding that all people need the same nutrients.

13. Apply knowledge of proper nutrition when selecting one's food.

14. Analyze current trends and events in society which affect nutritional status and behavior.

15. Describe various ways in which the nutritional value of foods can be preserved.

16. Explain examples of social and emotional influences on nutritional behavior.

17. Investigate world food problems.

18. Relate different eating patterns to circumstances of living.

MAJOR CONCEPTS

1. Optimal growth is dependent on personal health practices and wise decisions.
2. Work efficiency depends upon adequate food intake.
3. Our selection of food depends upon many different factors.
4. Every food has a story.
5. All nutrients needed for growth are available through foods.
6. Some foods do more for us than others.
7. One's daily diet should be planned each day to include foods which produce sufficient amounts of nutrients and calories.
8. Observing proper table manners helps make meals pleasant for everyone.
9. One's feelings and emotions affect digestion of food.
10. Certain processes make modern-day eating a safe, varied and interesting part of living.
11. Many steps are being taken to solve world food problems.

CONTENT OUTLINE

I. Functions of Foods in the Body
  A. Building body tissues and muscles
  B. Preventing disease
  C. Building strong teeth and bones
  D. Providing energy and heat
  E. Aiding in elimination

II. Nutrients and Their Functions
  A. Proteins
   1. Build and repair body tissues
   2. Supply heat and energy
  B. Carbohydrates
   1. Supply heat
   2. Provide energy
  C. Fats
   1. Supply heat
   2. Provide energy
  D. Vitamins
   1. Regulate body processes
   2. Maintain health (prevent deficiency diseases)
  E. Minerals
   1. Build and repair body tissues
   2. Regulate body processes
  F. Water
   1. Regulate body processes
   2. Build body tissue

III. Sources of Nutrients
  A. Protein
   1. Milk
   2. Meat group
  B. Carbohydrates
   1. Breads and cereals
   2. Vegetables and fruits
   3. Sweets
  C. Fats
   1. Butter and margarine
   2. Oils
  D. Vitamins and minerals
   1. In all food groups
   2. In varying amounts

IV. Planning for Good Nutrition
  A. Selecting from the Basic Four food groups for simple meal planning
  B. Good snacks versus empty calories
  C. Comparing nutritive value of foods and their prices
  D. Type A School Lunch Program

V. Proper Care of Foods (keeping food and water clean and free from harmful "germs")
   A. Processing to prevent spoiling
      1. Canning
      2. Drying
      3. Preserving
      4. Freezing
      5. Refrigeration
   B. Desirable practices in preparing, serving and storing foods

VI. Reasons for Eating
   A. Maintain life
   B. Promote growth
   C. Keep healthy
   D. Satisfy hunger
   E. Satisfy habit
   F. Enjoyment

VII. Digestion
   A. Basic structure and function of digestive tract
      1. Mouth
      2. Stomach
      3. Small and large intestines
   B. Basic structure and function of accessory organs
      1. Pancreas
      2. Liver
      3. Gall bladder

VIII. Influence of Environment and Custom on What We Eat

LEARNING AND EVALUATIVE ACTIVITIES

1. List and discuss the foods they ate for breakfast this morning.

2. Role play ways to encourage a relaxed mealtime and ways to create tension during mealtime.

3. Discuss food intake of people involved in different occupations.

4. Discuss radio and television advertisements and family food likes.

5. Discuss your favorite food at birthdays, Christmas, Thanksgiving, etc. What do children in other lands eat on their holidays?

6. List foods discovered in America.

7. List foods we have learned to eat which came to us from other countries.

8. List foods you dislike and find substitute foods supplying same nutritional value.

9. Visit the school kitchen to find out how they store foods to conserve nutritional value. (Refrigeration, freezer, cold, dry, etc.)

10. Discuss food fads and the problem of getting reliable information. Discuss how to tell the difference between food facts and misinformation.

11. List superstitions the pupils or their parents have about foods. Discuss where they think these ideas came from and whether they are based on sound facts. (Fish is a brain food, white eggs are better than brown, etc.)

12. Relate obesity to caloric intake and output. Determine how our body uses energy.

13. Discuss table manners and reasons why manners are used.

14. What are the effects of cheerful, pleasant surroundings.

15. Discuss whether feelings of happiness or sadness influence digestion.

16. Discuss fear, hate and anger relating to digestion.

17. Discuss rest and relaxation in relation to digestion. Importance of moderate activities immediately after meals.

18. Discuss effects of a quick or hurried meal.

19. Study laws regarding pasteurization of milk.

20. Study laws regarding enriching and labeling of processed food.

21. Discuss the advantages of each of the processes used to preserve food. (Cooling, canning, drying, dehydration, freezing, smoking, salting, pickling, freeze-dried, flash frozen.)

22. Expose a variety of foods to the air at room temperature. Note how long it takes for each kind of food to spoil. Discuss how these foods are "kept" when they are transported and when they are in stores. Identify the signs of food spoilage: odor, change in texture, change in appearance and color, and change in taste.

23. Observe under a microscope the growth of bacteria or mold that appears on spoiled food.

24. Invite a home economist to speak to the class about preserving and enriching food.

25. Investigate current world food problems. Plan a panel discussion on some solutions to these problems.

26. Discuss organizations involved in world food problems: Food and Agriculture Organization (FAO), World Health Organization (WHO), United Nations International Children's Emergency Fund (UNICEF).

27. Make a bulletin board display of reasons why we eat (growth, energy, feel better, etc.).

28. Relate number of accidents, errors, misjudgments, to food intake.

29. Have a committee check plate waste for a week to determine what foods are not eaten in the lunchroom from both school served and home packed lunches. Discuss why these foods were not eaten; discuss how we learn to like foods.

30. Write about your favorite food. (Try to make it sound so tasty others will want to try it. Bring recipe to class for others to try. Tell its history and any related customs.)

31. Plan a Spanish menu, Italian menu, French menu, etc.

32. Make six different colored blocks of construction paper. Designate each one as vitamin, fat, carbohydrate, water, etc. Build different foods with the blocks. Make comparisons.

33. Make a chart of the nutrients listing each one, telling what it does and what foods contain adequate amounts of them.

34. Discuss best ways of spending allowance money on food treats. Emphasize best time to eat snacks.

35. Choose a food such as milk or eggs or a favorite vegetable. Make a little book chart showing the many ways to serve this food, how the food aids in growth and development, etc.

36. Plan a "Food of the Week" campaign to introduce new foods or those seldom eaten.

37. Develop a class or individual recipe booklet to add to from time to time. Use recipes they've tried from their own camping or cooking experience or refer to Scout or Junior Cook Books.

38. Collect menus from cafeteria for a week and evaluate them for their basic four contributions.

39. Prepare sample breakfast, dinner, snack, and party menus. Compare with own daily intake.

40. Exhibit a display of healthful foods in school lunchroom.

41. Prepare charts or posters showing an infant, growing child, construction worker, a mother, a grandmother, etc. Discuss their individual food needs.

42. Demonstrate setting up a table, serving and clearing off.

43. Discuss and demonstrate use of napkins, utensils, condiments, etc.

44. Soak some dried food such as prunes, raisins, macaroni, milk and soup in water. Observe the effect on the food; permit the soaked food to remain exposed to the air at room temperature for several days. Discuss why this soaked food spoiled, but when it was dried it did not.

45. Organize a panel to discuss the values of enriching foods (milk, bread, cereals, juices.)

RESOURCES

Films:

- *Count Down 4-4-3-2..., BOCES #833-115, 30 minutes
- Digestion and the Foods We Eat, BOCES #831-259, 9 minutes
- Digestion in Our Bodies, BOCES #831-47, 11 minutes
- *The Flim-Flam Man, BOCES #833-118, 30 minutes
- *Getting It All Together, BOCES #833-120, 30 minutes
- *The Great Nutrition Turn On..., BOCES #833-122, 30 minutes
- How a Hamburger Turns Into You, BOCES #832-119, 19 minutes
- *Look Inside Yourself, BOCES #833-131, 30 minutes
- *The Racer That Lost His Edge, BOCES #833-135, 30 minutes
- What's Good To Eat, BOCES #832-199, 17 minutes

Kits:

- Cereals, A Food For Today, BOCES #123-26
- It's Breakfast Time, BOCES #123-25
- Nutrition Oriented Menus, BOCES #123-23

* films from Mulligan Stew Series - student comic book-type manuals, BOCES #P-132, records, and teacher's manuals available upon request.

SENSORY PERCEPTION

OVERVIEW

The senses keep us in touch with the world and tell us of our body's needs. Individuals need to be aware of the work and functioning of the five main senses - and some additional senses. Likewise, the senses are related to that larger system of which they are a part - the nervous system.

There are warning signs that tell us when the eyes and ears are not functioning properly and there are specific measures to be followed in caring for these sense organs.

OBJECTIVES

Suggested Pupil Outcomes:

1. Identify the sense organs.
2. Value the constant dependency on our senses.
3. Value the importance of proper care of the sense organs.
4. Identify the importance of vision and hearing for normal daily functioning.
5. Identify rules for protecting the sense organs from injury and infection.
6. Participate in periodic assessment of vision and hearing efficiency.
7. Explain the need to correct or compensate for vision and hearing deficiencies.
8. Utilize prescribed sensory aids properly.
9. Utilize all of the functioning senses to perceive one's surroundings.
10. Practice the proper care of the sense organs.
11. Analyze the general structure and function of the sense organs.
12. Describe the characteristics of and the necessary adjustments made in relation to sensory defects.

13. Value the importance of periodic testing for vision and hearing.

14. Relate the role of sensory perception to general health.

15. Describe the role of hearing aids and corrective lenses.

16. Explain the function of the sense organs.

MAJOR CONCEPTS

1. The senses keep us in touch with the world and tell us of our body's needs.
2. There are five main or special senses - seeing, hearing, smelling, touching, and tasting.
3. Some other "deep senses" within the body are the sense of balance, the kinesthetic sense, the senses of hunger and thirst.
4. Sensory nerves carry messages from the five main senses to special centers in the brain.
5. The eyes receive light and send light messages to the brain; then we see.
6. Sound is produced by something vibrating.
7. Eyeglasses can help correct near-sightedness, far-sightedness, and astigmatism.
8. Hearing aids can help people with certain kinds of hearing loss to hear better.
9. Taste and smell often "go together" and are frequently called the "chemical senses."
10. The sense of touch is actually a group of senses that perceive heat, cold, pressure, pain, and so on.
11. People who are color-blind cannot distinguish certain colors.
12. Since the sense organs act as receiving stations for impressions of the world around us, we should care for them well.
13. The body works as a unit. All parts are interrelated.

CONTENT OUTLINE

I. The Senses and Their Interrelationships

II. Special Senses
  A. Vision (sense of sight)
    1. Parts of the eye
    2. How we see
    3. Common vision defects
      a. Near-sightedness (myopia)
      b. Far-sightedness (hyperopia)
    4. Color perception
      a. How we see color
      b. Color perception defects
      c. Color perception tests
    5. Visual acuity tests
    6. The Development of vision
    7. Care of the eyes and vision
      a. Eye disorders
      b. First-aid for eye injuries
      c. Eye care and general health
  B. Hearing (sense of sound)
    1. Parts of the eye
    2. How we hear
    3. How the ear helps maintain balance
    4. Common hearing defects
    5. Tests of hearing
    6. Care of the ears and hearing
  C. The sense of taste and smell
    1. Taste buds in the tongue
    2. How we taste substances
    3. Cells of smelling sensations in the nose
    4. How we smell substances
    5. Care of the organs of taste and smell
  D. Skin sensations
    1. Structure of the skin
    2. Skin sensations
      a. Pressure, touch and pain
      b. Heat and cold
    3. How the skin sensations help us

III. Sensory Perceptions and Good General Health
  A. Sleep and rest
  B. Nourishing foods
  C. Exercise
  D. Protection of our senses
  E. Medical check-ups

LEARNING AND EVALUATIVE ACTIVITIES

1. Blindfold a student and have him identify various sounds, i.e. whistle, knock on the door.

2. Invite the school nurse to the class to discuss eye care and safety.

3. Invite the school nurse to the class to discuss ear care and safety.

4. Invite a speaker from the Sheriff's office to talk on the relationship of impaired vision or hearing and pedestrian or traffic safety.

5. List the various sensory functions of the body that are dulled by excessive drinking. Beside each dulled function note a related potential problem.

6. Discuss eye and ear defects which interfere with normal hearing and vision. Also discuss how these defects can be compensated for or corrected.

7. Invite the school nurse-teacher to class to demonstrate and explain the instruments used in the school to test hearing and vision.

8. Collect an assortment of things such as an eraser, a bracelet, a pen, a bobby pin, a key, a paper handerchief. Volunteers may be blindfolded and the objects handed to them, one by one, to indentify. This experiment will show how many things can be identified by touch alone.

9. Darken the classroom and note the change in color of various objects.

10. Discuss color perception deficiencies.

11. Demonstrate how sound travels by securing a tuning fork. Strike it gently and quickly place it in a pan of water so that the ends touch the water. It will make a humming sound because the prongs vibrate. The water will move with the vibration.

12. Give some examples of loss of balance (swinging, sudden ascent).

13. Experiment to verify nerve sensations and itching: Drown out itching with a stronger pain or cold signal elsewhere.

14. Diagram skin and glands.

15. Blindfold a student, have him hold his nose and then try to differentiate between a potato and an apple.

16. Blindfold a student and have him smell a strong substance such as an onion. Remove the onion and replace it with mothballs. Ask the student to indicate: (1) when he no longer smells the onion; (2) when he begins to smell something else, and (3) what he thinks the new substance is.

17. Put the names of several occupations in a box. Have the children pick out one of these and relate the importance of the different senses to the occupation, i.e. pilot, telephone wirer, signalman, coffee taster.

18. Demonstrate simple first-aid for eye injuries.

19. Draw taste buds; have blindfolded tasting test. Do tastes affect what we select to eat? (Use celery, apply, carrot, etc. to determine sweet, sour.) Where can you taste sweet, sour, etc.?

20. Have a free flow of ideas concerning eye difficulties of students and how they were corrected.

21. Have the children describe the care taken in the examination and fitting of glasses.

22. A committee might be appointed to assemble books for class use on such topics as the eyes, the ears, and the main senses. If models of the eye, ear, nose, or other sense organs are available, they might be assembled and displayed.

23. Ask pupils to mention some key words related to hearing which they might look up in an encyclopedia. Have them tell in what volumes these words would be located. (Sound - S; Eustachian tube - E; Deafness - D; Hearing aids - H.)

24. Discuss: "Do newborn babies see well?"

25. Discuss: "Why do you sometimes 'see stars' when you bump your head?"

26. Discuss: "Why are the smells of food so strong when you first smell them?"

27. Discuss: "Why do you sniff to smell a flower?"

28. Discuss: "How can you tell from which direction a sound is coming?"

29. Make a comparison of the senses involved in radio and television.

30. Have the children discuss how color is used for safety.

31. Discuss the problem that a person has to face who has never heard sounds or who has lost his hearing.

32. Have the students discuss situations in which their ears hurt or "pop" when swimming or riding in a car.

RESOURCES

Books:

About Four Seasons and Five Senses, Ruth Shaw Radlauer; Melmong Publishers, Inc., Chicago, Illinois, 1960

Why Glasses? The Story of Vision, George John Sands, MD.; Medical Books for Children; Lerner Publications Company, 241 First Avenue North, Minneapolis, Minnesota 55401, 1960, 611
S

Films:

Inside/Out Series: BOCES (video cassettes), 15 minutes each
A Sense of Joy
Donna

Kevin, BOCES #842-9, 16 minutes

Philip and the White Colt, BOCES #833-134, 23 minutes

DENTAL HEALTH

OVERVIEW

Are good teeth really important to appearance and health? Watch people when they smile...or look into the mirror. The lack of understanding and appreciation for good dental health on the part of parents and children often results in the neglect of early and regular dental care. Many other factors, among them frequent and excessive consumption of sweets, failure to practice good oral hygiene habits, fear of dental treatment and failure to include funds for dental care in the family budget have all contributed to one of the most common of all diseases affecting the American people - tooth decay and dental disorders.

Dental surveys reveal startling facts about the large percentage of people involved with dental caries, inflammation of the gums, irregular alignment of teeth and extracted teeth. Through education a great number of these dental ills can be prevented or controlled. The school must attempt to help the teacher recognize the child with dental health problems and expand every effort possible to coordinate efforts of parents and agencies in providing dental care. A good school dental health program will involve education, prevention and treatment. This unit will deal with the educational phase of the program as it pertains to the child and his parents. Because dental health is known to affect the general health, appearance and social adjustment of an individual throughout his lifetime, the school can be a valuable asset in helping to control dental disease, correcting defects and establishing good oral hygiene habits.

OBJECTIVES

Suggested Pupil Outcomes:

1. Practice daily activities known to contribute to better health.
2. Relate dental health to general health.
3. Describe how dental health is a necessary requirement for a good appearance.
4. Encourage parents to provide periodic professional treatment.
5. Distinguish between practices which promote and those which hinder development and health of oral structures.
6. Utilize sound protective measures against accidents to oral structures.
7. Value the continuous need to improve dental health status.
8. Identify those practices which affect dental health.

9. Describe the functional characteristics of the oral structure.

10. Value the role of proper diet in the development and maintenance of dental health.

11. Evaluate individual growth and development of oral structures.

MAJOR CONCEPTS

1. Teeth have structures to serve specific purposes.
2. The teeth are calcified structures fixed in bony sockets in the upper and lower jaws.
3. Our teeth help us to chew food for good health, speak clearly, look attractive and have proper facial form.
4. Each tooth has a name which indicates its special job.
5. Food habits influence dental health.
6. Malocclusion is the term applied to irregularities in the position of the teeth and the improper coming together of the teeth upon closing of the jaw.
7. Caries usually begin with a small hole, usually in a fissure or flaw of a tooth, in an area where food may be lodged, or where it is difficult to remove food by brushing.
8. Tooth decay is usually caused by acids forming in the mouth.
9. Diseases of the gums and other supporting structures of the teeth are called periodontal diseases.
10. Preventative measures for periodontal diseases include proper tooth care, a well-balanced diet, and regular visits to the dentist.
11. Traumatic injury can crack, loosen, or knock out teeth possibly causing malocclusion and affecting speech patterns.
12. Safe play habits must be developed to avoid tooth injury.
13. Missing teeth may cause other teeth to shift positions, causing an interference with the chewing process and destroying the normal symmetry of the face and jaw.
14. Daily personal care promotes dental health.
15. Dental supervision is important in controlling dental disorders.

CONTENT OUTLINE

- I. How a Tooth Grows and Develops
    - A. A look at the structure of a tooth
        - 1. Root
        - 2. Crown
        - 3. Neck
    - B. Let's analyze the composition of a tooth
        - 1. Enamel
        - 2. Cementum
        - 3. Dentin
        - 4. Pulp
        - 5. Periodontal membrane
    - C. Let's look at the kinds of teeth and their jobs
        - 1. Types
            - a. Central incisors
            - b. Lateral incisors
            - c. Cuspids
            - d. Bicuspids
            - e. Molars
        - 2. Functions

- II. Nutrition's Important Role in Dental Health
    - A. Foods necessary for maintaining oral health
    - B. Vitamins and minerals needed for good dental health
    - C. Certain kinds of foods that are detrimental to good dental health

- III. Problems Do Arise!
    - A. Malocclusion
        - 1. Definition - What it is
        - 2. Causes - What its causes are
        - 3. Treatment - How it can be treated
        - 4. Prevention - What you can do to prevent it
    - B. Dental caries
        - 1. Definition - What they are
        - 2. Causes - How they develop
        - 3. Treatment - What can be done to correct them
        - 4. Prevention - How they can be prevented
    - C. Periodontal disease
        - 1. Definition - What it is
        - 2. Some common periodontal diseases
            - a. Gingivitis
            - b. Vincent's infection
            - c. Periodontitis
        - 3. Types of treatments available
        - 4. Key to prevention
    - D. Traumatic injury
        - 1. Common causes
        - 2. How various injuries are corrected/treated

- E. Missing teeth
    - 1. Most common causes
    - 2. Effects on other teeth
    - 3. Treatment varies
        - a. Fixed partial denture
        - b. Removable partial denture
    - 4. Preventive procedures

IV. Maintaining Oral Hygiene
- A. Proper brushing
- B. Massaging
- C. Rinsing the mouth
- D. Use of dental tape or floss
- E. Prevention of injuries to the teeth
- F. Good dental health habits
- G. Fluoridation
- H. Good nutritional habits

V. Roles of dentists
- A. Prevention of dental problems
- B. Correction of dental problems
- C. Special types of dentists
    - 1. Orthodontist
    - 2. Pedodontist

LEARNING AND EVALUATIVE ACTIVITIES

1. Discuss why we need teeth, (smile, appearance, chewing, talking.)
2. Discuss and diagram a tooth, showing and labeling each part and naming its function.
3. Discuss how teeth grow by examining a model of teeth and jaw.
4. Examine extracted teeth.
5. Discuss the importance of taking good care of primary teeth even though you will be losing them.
6. Discuss the types of teeth various animals have and relate the kind of teeth they have to the kind of food they eat.
7. Show how teeth aid in digestion by experimenting with sugar and water. Put a whole lump of sugar in one glass of water and a crushed lump in another glass. Stir each and observe which dissolves more quickly; cut or crushed food can be changed more easily into liquid form so that our bodies can digest it.
8. Conduct a "sweetless party". (Popcorn, crackers-cheese, potato chips, carrot strips, radishes, celery stuffed with cheese, pretzels, unsweetened fruit juices.)
9. Chew a piece of bread until it begins to taste sweet; discuss in relation to chewing and digestion.
10. Use "tes-tape" (available at drug stores) in saliva following the eating of certain foods to show presence of sugar in food.
11. Estimate the cost of the "sweet tooth" habit, and compare it with the estimated cost of more wholesome food.
12. Cut marshmallows and apples with knife to demonstrate differences as to how food sticks.
13. Discuss the value of certain foods such as apples, celery, carrots, as tooth cleaners.
14. Have pupils show the acidity or alkalinity of mouth using pH paper. Give pupils strips of paper, instructing them to soak sterile cotton swabs with saliva and apply to the paper. The degree of acidity or alkalinity can be determined by comparing resulting color of paper strips with color chart provided by manufacturer. A pH type 7 indicates an acid mouth and above 7 shows an alkaline mouth.
15. To show that acid will weaken substances containing calcium (such as tooth enamel) place a whole egg in a bowl of vinegar (acetic acid) for about 24 hours. The egg shell should become soft as the vinegar decalcifies the shell.

16. Illustrate how acids dissolve calcium from sterilized, extracted teeth. Place one tooth in 1% solution hydrochloric acid and another in plain water. Allow to stand for a week and note differences.

17. Discuss irregularities in a jaw resulting from: Loss of 6 year molar, too early loss of deciduous teeth, thumb or finger sucking, nail-biting, mouth breathing.

18. Determine how many class members have had accidents injuring teeth. Discuss how they might have been prevented.

19. List activities which might damage enamel (biting hard objects, opening bobby pins, cracking nuts, chewing pencils, chewing ice, chewing hard candy, pumping drinking fountain, falling off bicycles or skates, etc.)

20. Discuss malformation of teeth and how teeth depend on each other for alignment.

21. Discuss the decay process through posters on bulletin boards.

22. Draw pictures of healthy and unhealthy teeth and discuss mouth and tooth diseases.

23. Make paraffin models. Bite on paraffin which has been slightly warmed. Fill paraffin model with plaster of pairs. Illustrate occlusion.

24. Demonstrate proper ways to brush teeth and discuss time for brushing them.

25. Perform (either at school or at home) disclosing tablet test to demonstrate effectiveness of toothbrushing. (Your dentist or local dental society can provide information about securing a supply of these tablets.)

26. Discuss the value of the use of tooth pastes or tooth powders.

27. Bring in toothpaste advertising. Compare and evaluate.

28. Observe one's own teeth in a mirror to determine how clean they are. Observe any debris by removing some with toothpick and observing under microscope.

29. Demonstrate relative value of brushing, swishing or chewing raw vegetables. Six students eat chocolate cookies; then have one brush with water, one swish and swallow, one eat apple, one eat carrot, and one eat celery and one does nothing. Compare residue left on teeth.

30. Conduct a smile campaign with emphasis on mouth cleanliness.

31. Write group letter to state health department requesting information about fluorides.

32. Invite dentist to tell how he can repair broken teeth, or send small group to dentist to prepare report for class on how he makes repairs and cost.

33. Discuss reasons for regular visits to dentist.

34. Discuss how to make dental appointments, why it is important to be prompt, and how to remember appointments.

35. Make a chart naming different kinds of teeth and showing at what approximate ages they arrive.

36. Survey lunchroom menus for a week. Record foods containing nutrients for dental health and foods that are nature's "toothbrushes".

37. Select some common foods, then figure and chart sugar content. Plan substitutes showing sugar content of substitutes, or show spoonful amounts of sugar found in candy, soft drinks and other foods by placing equivalent quantities in test tubes or other container. Each container should be labeled and placed on exhibit.

38. Make a scrapbook or prepare a display showing foods with high carbohydrate content and low carbohydrate content. Ask the dental hygienist for a table of foods with "hidden sugar".

39. Investigate and report on food habits and dental health of countries that have been studied.

40. Compare diets of primitive people with diets of more civilized people to determine how diet and chewing of coarse foods influence the teeth and jaw.

41. Make posters illustrating how teeth affect appearance.

42. Diagram and discuss teeth showing progress of decay.

43. Look up and report on the history of the toothbrush. Make samples or draw pictures of some of the early kinds of toothbrushes.

44. Compose scientifically correct commercials.

45. Write brief paragraph in answer to question: "What must we do to take care of our teeth?"

46. Write safety jingles, limericks, slogans.

47. Make posters to place above drinking fountains.

48. Write a report on the values of X-ray films in dental health.

49. Make a study of modern dental care as compared with that of 50 years ago.

50. Investigate reasons for and results of orthodontic treatment.

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RESOURCES

Book:

Dentist's Tools, Carolyn Lapp; Medical Books for Children; Lerner Publications, Inc., 241 First Avenue North, Minneapolis, Minnesota 55401, 1961,
617.6
L

Films:

Dentist in the Classroom, BOCES #832-73, 15 minutes

Project Teeth, BOCES #832-72, 14 minutes

Filmstrip:

The Teeth, BOCES #401-13

DISEASE PREVENTION AND CONTROL

OVERVIEW

Mankind has struggled constantly against disease. His efforts have not always been directed understandingly because there was little scientific information available until the nineteenth century. Until this late period in man's development, prayers and magic were the main approaches to control. An attitude of resignation was prevalent then as it is now in many underdeveloped countries. An aggressive attitude toward disease control was not possible until the basic facts as uncovered by Pasteur and Koch were developed.

Whereas, the outlook is most promising with respect to the communicable diseases, the continued high death rate from the non-communicable diseases of middle life presents serious problems to medicine and educators. The answer to the problem of diseases of middle life is not wholly clear, to say nothing of the diseases of the aged, but the fact that an understanding of personnel and community hygiene is necessary to help people live more wholesomely seems clearly indicated. Basic understandings of the salient factors are important for all students to acquire if they are to cooperate intelligently in the control and prevention of disease.

Present-day needs, the age level of the students, and the interests of these students should be the basis for the selection of the specific diseases to be studied. An historical study of those diseases relegated to a lower level of concern as causes of death and disability (polio, tuberculosis, cholera, etc.) can develop appreciation of the work of dedicated men and women, and in addition, yield valuable understanding for further prevention.

Through the study of disease control, the student can become a well-informed member of the community who will have confidence in right action and will show his recognition of the obligation he owes as a good citizen to society to use all protective measures for himself and his family, and to insist that other members of society do likewise. He will not remain unprotected and dangerous to his community when proven and protective aids are available.

OBJECTIVES

Suggested Pupil Outcomes:

1. Describe the communicable disease process.
2. Identify man's role in the transmission of disease.
3. Identify fundamental principles of disease prevention.
4. Demonstrate personal habits that will protect oneself and others from communicable disease.

5. Describe basic community efforts to minimize the communicable disease problem.

6. Contrast the communicable and non-communicable disease syndromes.

7. Differentiate between communicable and non-communicable disease.

8. Analyze the historical efforts of man to understand and cope with disease.

9. Explain the relationship of past developments to present efforts in the area of disease prevention.

10. Describe the body's natural defenses against disease. Conclude that immunization prevents and controls some diseases.

11. Use the suggested procedures for immunization.

12. Analyze the significance of disease prevention and control. Cite examples of the effects of disease on individuals, families, communities, and countries.

13. Demonstrate ways to protect the individual, his family, and the community from disease.

14. Comprehend the fundamental principles of disease transmission.

15. Describe the procedures used to supplement the body's natural defenses.

MAJOR CONCEPTS

1. All communicable diseases are caused by infectious agents.
2. There are many kinds of communicable diseases capable of being transmitted from person to person.
3. Many diseases, such as degenerative diseases, which attack man, cannot be transmitted from one person to another.
4. There are many different causes of diseases.
5. Age, sex and heredity sometimes influence an individual's susceptibility to disease.
6. Man has always tried to understand the cause of disease.
7. The discovery of microorganisms and the formulation of the germ theory of disease led to the development of new approaches to disease control such as immunology.
8. Some disease control measures are very specific (immunization) while others are very general (sanitation).
9. The Public Health Department is concerned with the health of the entire community.
10. Each of us has a responsibility in the fight against disease.
11. A disease is not limited to one locale - it can spread from community to community; from one country to another.
12. Disease is fought on a local and worldwide level.

CONTENT OUTLINE

- I. The Hidden and Obvious Nature of Disease
    - A. Kinds and types
        - 1. Communicable diseases
            - a. Definition
            - b. Transmission
        - 2. Non-communicable diseases
    - B. Causes of diseases
- II. History
- III. Modern Disease Control
    - A. Immunization
    - B. Public health measures
        - 1. Sanitation
        - 2. Research
        - 3. Diagnostic techniques
    - C. Health Education
        - 1. School
        - 2. Home
        - 3. Public health education
    - D. Treatments
        - 1. Medical
        - 2. Surgical
        - 3. Rehabilitation
- IV. Significance of Disease
    - A. To the individual
        - 1. Personal efficiency
        - 2. Longevity
    - B. To society
        - 1. Economics and standard of living
        - 2. Progress
        - 3. Population trends
    - C. To the world

LEARNING AND EVALUATIVE ACTIVITIES.

1. Discuss questions such as, "What is disease?", "What accomplishments has man made in combatting disease in the past 50 or 50,000 years?"

2. Introduce terms used in discussion of communicable disease:
    Susceptibility - the condition for establishment of an infection by invasion of virus or bacteria
    Resistence - the condition of lessened susceptibility that may result from immunization, changed nutritional status, and influences of age, sex and heredity.
    Infection - the process by which a microbial organism invades and establishes a parasitic relationship with a host.

3. Class discussion of all possible ways to prevent spread of disease. Review with boys and girls the things they can do to help keep from spreading disease germs: wash their hands before eating and after using the toilet; cover coughs and sneezes; keep pencils and fingers out of the mouth; use their own towels and washcloths; avoid drinking from a common drinking cup; and stay home from school if they have a cold.

4. Boys and girls might discuss how they and their families sometimes help improve the health of children around the world. This is done by Halloween collections for UNICEF - a branch of the World Health Organization devoted to the welfare of the world's children. Purchase of UNICEF Christmas cards and note paper also helps provide money to aid UNICEF in its works.

5. Encourage discussion of pupil's ideas about the problems Man has had to conquer in the war against disease. Explore their knowledge about the work of such "health heroes" of the past as Jenner, Pasteur, and Lister.

    The first successful disease-fighting chemical Ehrlich produced was Salvarsan (the antisyphilis drug). Syphilis, should pupils ask, is a venereal disease, often called VD, which is spread by skin-to-skin contact, as in intimate sexual contact. Syphilis and gonorrhea are the most common venereal diseases; they are spread by close intimate contact, generally though not exclusively by sexual contact, with someone who has the disease. (See VD: Facts You Should Know by Andre Blanzaco, M.D., published by Scott, Foresman and Company, 1970.)

    Fleming's discovery of penicillin was a great medical triumph. This antibiotic is particulary effective in the treatment of pneumonia, meningitis, and syphilis. Millions of people owe their lives to the use of penicillin.

    Scientists have continued the search for antibiotics and other germ-killing drugs - a search that has been extraordinarily successful and may be even more so in the future.

    Some basic medical discoveries are presented here: vaccination against smallpox, the "germ theory" of disease, vaccination against rabies, and introduction of antiseptic methods in surgery. The class might construct a "time line" to indicate when these breakthroughs occurred.

6. Examine drops of water (rainwater, river water) under a microscope. Report on types of living organisms found.

7. Stress that the immunity acquired from having a disease is more effective than the protection achieved by vaccines. Naturally acquired immunity lasts longer, often for a lifetime. But having a disease carries with it certain dangers. Thus, measles may have complications that lead to deafness or blindness. The use of vaccines to keep people from having communicable diseases represents a giant step forward in preventive medical care.

8. Invite the class to speculate upon some things communities today need to do to help prevent the spread of communicable diseases and to keep people healthy. You might make a preliminary list of suggestions and keep it for future additions and corrections.

9. Ask pupils to tell what they would look for if they were sanitary inspectors: at a restaurant, at a dairy, at a dairy farm, at a food store.

10. Pupils may wonder why pasteurization is necessary if safety precautions are taken at the dairy farm and en route to the dairy. It is necessary because some milk is still handled under conditions that are not ideal. Improper cooling or inadequate protection against flies, dirt, and droplet infection are amoung the conditions that may exist. Thus, pasteurization is an essential safeguard, not a substitution for cleanliness.

    The class might take a trip through a local restaurant or food store at an off-hour. The purpose would be to elicit information about the procedures used for maintaining cleanliness, for preventing food spoilage, and for obtaining certification. If the entire class cannot go, an individual might volunteer to make the trip with his parents and report to the class.

11. To safeguard the health of the public, modern communities use such means as water treatment plants to purify water, as well as waste treatment plants to take care of sewage in sanitary ways; they also use methods of insect and rodent control and air pollution control.

    Desalination plants make it possible for some cities in the United States to use water taken from the sea; increasing use may be made of the desalination process.

    New scientific knowledge is necessary to improve methods of removing complex industrial wastes from water; many industries are finding ways to use some of their waste materials instead of dumping them into, and polluting, nearby water supplies.

    Local health departments cooperate with state departments of public health to insure sanitary methods of food handling.

    Slum areas are unsafe and unhealthful, and today's communities are turning attention to urban renewal and improved public housing; the Federal government gives financial aid to communities for urban redevelopment.

    The local health department helps take responsibility for checking the spread of diseases and for educating people in the community about healthful ways of living so that they can help prevent communicable diseases.

12. Have nurse-teacher visit classroom and discuss current immunizations. Ask her to relate this information to the immunization data on pupil cumulative health records.

13. Bacteria Experiment: Show that germs "like" a warm, moist, and dark atmosphere in order to thrive and multiply.
    Crush several dried beans.
    Place half of the beans in each of two containers. Cover with water.
    Store one of the containers in a warm, dark place and the other one on the classroom sill. After several days note the results.
    Secure two apples. Peel them and place one in a dark, moist warm place; leave the other exposed to the air and sunlight. Note the results in a few days.

14. To demonstrate the need for refrigeration in preserving foods, obtain two glasses of milk and cover them. Put one in the refrigerator and leave the other outside at room temperature. Compare the milk in each glass for several days noting the difference in appearance, texture and taste.

15. Discuss non-communicable diseases - 4 main categories:
    Deficiency diseases - due to a lack of essential nutrients (i.e. scurvy)
    Hereditary diseases - resulting from faulty genes (mongolism, hemophilia)
    Constitutional diseases - due to a dysfunction of an organ or tissue (i.e. diabetes)
    Traumatic diseases - (fractures, burns)

16. Discuss ways non-communicable and communicable diseases are alike and different. Make a chart or bulletin board display.

17. Discuss controls of communicable diseases and non-communicable diseases. How they are alike and different. Make posters or bulletin board displays.

18. Before pupils leave the topic of modern sewage-treatment methods, you might want to stress how such methods have "paid off" in terms of improved community health conditions. Mention, for example, what has happened in the city of Chicago over the years. In 1891, there were 174 typhoid deaths per 100,000 population in the city. As a result of modern sewage treatment methods, water purification, and other health measures, typhoid deaths dropped by 1950 to less than one per 100,000 population. Since 1955 there has not been a single death in Chicago from typhoid fever. Also improved sanitation has paid off in greatly lowered infant mortality rates.

19. When they are studying about air pollution, pupils might be asked to prepare an outline on the subject. Using these main topics - Sources, Effects, and Methods of Control - they might supply subtopics. Two books you might recommend to your pupils while they are studying about air pollution are John Marshall's The Air We Live In - Air Pollution: What We Must Do About It (Coward) and Alfred Lewis' Clean the Air! (McGraw-Hill).

20. Review with pupils some ways of finding out about the local water supply and about what efforts are made to avoid pollution of it: for example, by asking parents, by talking to neighbors, by writing a letter to the city water department for information, by writing to the state public health department, by doing research at the public library, by reading current articles and news items on environmental pollution.

21. Pupils might write a paragraph telling why it is more difficult for waste treatment plants to treat sewage today than it was 40 years ago.

22. Pupils could also write separate reports on urban renewal in their own community.

23. Preparation of a "Health and Disease" notebook by each student, or committee.

RESOURCES

Books:

Jr. Science Book of Bacteria, Gerald S. Lietz, M.D.; Garrard Publishing Company, 1964, 589.9
L

Karen Gets A Fever, Gilbert Miricem; Medical Books for Children; Lerner Publications Company, 241 Frist Avenue North, Minneapolis, Minn 55401 1961, 612
G

Peter Gets the Chicken Pox, Marguerite Rush Lerner; Medical Books for Children; Lerner Publications Company, 241 First Avenue North, Minneapolis, Minnesota 55401, 1959, 618.92
L

Pamphlets:

Equitable Life Insurance Company, 1285 Avenue of the Americas, New York, New York
Common Sense About Common Diseases
Protection Against Communicable Diseases

Film:

Vision of Dr. Koch, BOCES #832-185, 21 minutes

Filmstrips and Cassettes:

Health Heroes Series, BOCES #392-9
- Marie Curie
- Louis Pasteur
- Walter Reed
- Florence Nightingale

Filmstrip:

How To Catch a Cold, Walt Disney, Glendale, California 91201, #3.00

SMOKING AND HEALTH

OVERVIEW

Until recently tobacco smoking was something that one could take or leave without undue concern that smoking presented any obvious risk to health or life. Today, physicians and other scientists know about possible hazards in smoking, especially cigarette smoking, and a controversy over this subject still continues.

While per capita consumption of other forms of tobacco has gone down, cigarette consumption has increased per person. The smoking habit usually begins in the early teens. By grade 12, 40-55% of all children are found to be smoking according to one study. Many national, state, and local health agencies consider smoking, particularly amoung teenagers, to be one of today's most important health problems. Therefore, we need to assist students to make wise decisions regarding smoking before they are confronted by the pressures to smoke.

The United States Surgeon General's Report, SMOKING AND HEALTH, made in 1964 and a report in 1966, confirmed the serious health risks attributed to smoking. Skilled research personnel have conducted studies that prove smoking, particularly cigarette smoking, is associated with a shortened life expectancy. Cigarette smoking is regarded as an important factor in the development of cancer of the lungs and cancer of the larynx, and is believed to be related to cancer of the bladder, esophagus, and oral cavity. Male cigarette smokers have a higher death rate from coronary heart disease than non-smoking males. Cigarette smoking is regarded as one of the most important causes of chronic bronchitis. There is also a relationship between cigarette smoking and pulmonary emphysema.

The Joint Committee on Health Problems in Education of the National Education Association and the American Medical Association resolved "That schools, physicians, health departments, and other community agencies cooperate in an aggressive program designed to discourage children from starting the smoking habit and to influence youth who are smoking to discontinue the habit."

Individuals should try to reach a solution about their smoking by studying the available evidence, making a rational decision, and acting on it.

OBJECTIVES

Suggested Pupil Outcomes:

1. List the health hazards associated with smoking as they pertain to the individual and society.
2. Identify biased information in cigarette and tobacco advertising.
3. State advantages of good health in leading an active, productive life.

4. Relate the development of tobacco production and its use from colonial times to the present time.

5. Express supportive statements to the thesis that it is very difficult for a confirmed habitual smoker to quit smoking.

MAJOR CONCEPTS

1. The young person's decision about smoking is one of several important decisions in his life and should be based on a firm foundation of scientific knowledge.

2. Each individual is unique and therefore each of us arrives at our decision about smoking a different way.

3. Whether the individual starts to smoke or not, the decision is ultimately a personal one.

4. The ability to make an individual, personal decision not to smoke in spite of the opinions and practices of friends and acquaintances is an evidence of maturity.

5. The decision to smoke or not to smoke should be based upon an intelligent interpretation of facts and not upon peer pressure or a personal desire to appear "grown-up."

6. Smoke from tobacco is made up of gases and particles.

7. When a person inhales smoke these gases and particles enter his breathing passages and are deposited on the surfaces. Some are absorbed in the blood and some remain to produce damaging effects on the lining membranes.

8. Men and women who began the smoking habit several years ago did not have the knowledge of the harmful effects of smoking that we have today.

9. A young person who is largely dependent on his parents for food, shelter, and other life necessities, should consider the attitudes of his family before starting to smoke.

10. The disadvantages of smoking far outweigh any "advantages" one might imagine.

11. One does not have to smoke to act grown-up.

12. Man has used tobacco for several centuries.

13. Early users of tobacco were not aware of the consequences of smoking.

14. Tobacco production and distribution has become a very important segment of our national economy.

15. The incidence of heart disease, lung cancer, and other respiratory diseases has increased rapidly in proportion to the consumption of cigarettes.

16. The reasons why young people begin to smoke are evidence that they are unaware of the hazards of smoking.

17. Until recent years, our knowledge of tobacco's effects on the body has been shrouded in myth, superstition, and lack of knowledge.

18. The Surgeon General's Report on smoking and its conclusions have been accepted by the medical profession and other professional groups.

19. Overwhelming evidence has been compiled which indicts cigarette smoking as a cause of lung cancer.

20. The effect smoking has on retardation of ciliary action may aggravate cold symptoms.

21. During the growing years, smoking interferes with one's normal growth because of the depressing effect of tobacco on the appetite.

22. For maximal growth, development, and performance, one should avoid the use of tobacco.

23. A wide decision is based upon factual information and mature judgment.

CONTENT OUTLINE

- I. Man's Use of Tobacco
  - A. Early use of tobacco (1492 - 1600)
    - 1. American Indians
    - 2. Canadian Indians
    - 3. Natives of Mexico and Central America
    - 4. Europe (Middle 1500's)
  - B. The Middle Period (1600 - 1800)
    - 1. English colonies in America
    - 2. Use in other countries
  - C. Recent history (1800 - Present)
    - 1. Expansion of the industry
    - 2. Increased use of cigars and cigarettes
    - 3. Era of Tobacco Reform (1895 - 1921)
      - a. Many states banned the sale of cigarettes
      - b. Legal measures had no lasting influence
    - 4. The modern tobacco era
      - a. The United States is a world leader in tobacco
        - 1. Production
        - 2. Exportation
        - 3. Consumption
      - b. Certain of our states base a large portion of their economy on tobacco industry

- II. Tobacco and Health
  - A. Causes for concern in recent years
    - 1. Increase in heart disease
    - 2. More deaths due to lung cancer
    - 3. Shortened life expectancy of smokers
  - B. Increased tobacco use in the United States
    - 1. Per capita cigarette consumption increased since 1900
    - 2. Corresponding increase in incidence of lung cancer and other cardio-respiratory illnesses
    - 3. Consumption of pipe tobacco and cigars has decreased
    - 4. Smoking by teenagers has increased
  - C. Surgeon General's Report
    - 1. Report made in 1964
    - 2. Research findings
      - a. Cigarette smoking is a cause of lung cancer
      - b. The incidence of heart disease is higher among smokers than nonsmokers
      - c. Other respiratory diseases are more common among smokers
    - 3. People who have never smoked are least apt to die from lung cancer

D. Other effects of tobacco
   1. Effects on the respiratory system
      a. Interferes with normal breathing
      b. Athletes are instructed not to smoke
      c. Tendency toward more frequent colds of longer duration
   2. Effects on the digestive system
      a. Smoking tends to reduce one's appetite
      b. Interferes with the ability to taste and enjoy food
   3. Effects on heart
      a. Smoking increases heart rate
         1. Disadvantages to the Athlete
         2. Affects efficiency of body muscles
   4. Growth and Development
      a. Decrease the desire for food
      b. Deprives body of fresh air necessary for the growth of tissue

III. Your Decision About Smoking
   A. Important considerations
      1. Effects of smoking on one's health
         a. Content of smoke
         b. Physiological effects
      2. Effects of smoking on physical performance
      3. The expense of smoking
      4. The smoking habit may last your lifetime
      5. Safety implications of smoking
      6. Attitudes of parents and other family members
      7. Uniqueness of the individual
   B. Making the right decisions
      1. A mature decision based on a clear understanding of tobacco and its use
      2. The extent to which a person is "grown up" is not measured by his decision to smoke

LEARNING AND EVALUATIVE ACTIVITIES

1. Students dramatize a situation in which a ten year-old is encouraged to smoke by his friends. Ask class members how they might have reacted in a similar situation.

2. Suggest that each student ask the following question of his parents: "If you could make your decision to smoke or not to smoke all over again, would you start smoking?"

3. Have children tell about adults they know that have quit smoking or that have tried to quit. Why did they decide to quit? Were they successful?

4. Arrange for student panels to discuss the topic: "To what extent should parents make decisions for me?"

5. Have students prepare a brief essay describing their personal reasons for making a decision about smoking.

6. Ask students to fold a piece of notebook paper in half. On one portion have them write "The Advantages of Smoking." On the other portion of the paper have students list "The Disadvantages of Smoking." Ask each student to proceed to list all of the advantages and disadvantages he can think of. The teacher may combine the results and later discuss the many disadvantages of smoking as compared to the few (if any) advantages.

7. Use a smoking machine so children can see and smell substances that collect in the lungs.

8. Divide the class into small groups of no more than five members each. Students select a leader for their group. Each group may discuss the topic, "What Makes a Person Truly Grown Up?"

   After 12 to 15 minutes of discussion reassemble the class and have each leader report on the discussion of his group.

   Encourage general class discussion to determine those qualities which seem to characterize the mature person.

9. Use overhead projector with overlay to compare the death rates from cardio-respiratory disease in 1930 with the present rates.

10. Compare the increased rates of lung cancer, heart disease, etc., with the increased per capita consumption of tobacco. The students should be encouraged to note relationships between increased tobacco sales and the corresponding increase in lung cancer.

11. Invite the school physician or school nurse-teacher to speak to your class about the increase in lung cancer, heart disease, and other illnesses associated with smoking.

12. Students develop exhibits for your school health or science fair.

13. Students might suggest various reasons why young people begin to smoke. Arrange these reasons on questionnaires and request that those who smoke check the reasons why they began smoking. Distribute to students in grades 7, 8, and 9. Tabulate results.

14. Discuss the nature of malignant growth, emphasizing the low survival rate from lung cancer.

15. Display the American Cancer Society exhibit - a wheelbarrow of cigarette butts and a jar of "tar." Perhaps your students can create equally effective displays.

16. Suggest that students record the pulse rates of their smoking family members (while sitting) before and after smoking a cigarette. Graphs can be developed to record the variations in rates. Compare findings in class.

17. A student committee might prepare a bulletin board on "Smoking and Fitness."

18. Have children select and bring to class a cigarette ad from a magazine or newspaper. After studying the ad have them change the message so it tells the other side of smoking. Makes an interesting bulletin display.

RESOURCES

Book:

You And Smoking: It's Really Up to You, Diane Gess, Ramapo House

Film:

Barney Butt, BOCES #832-277, 13 minutes

Filmstrip and Cassette:

Smoking and Children, BOCES #392-1

ALCOHOL EDUCATION

OVERVIEW

Alcoholism is one of this country's major social - medical - economic problems. It is a tragic problem indeed when one considers that this condition is brought on knowingly. Every victim of alcoholism has made the choice to drink. Alcoholism is a progressive illness, epidemic in nature, and affects men and women in rural as well as urban areas without regard for educational, religious, cultural or financial status. The acute social and domestic problems of alcoholism are reflected in broken homes, family misery, neglected children, automobile accidents and criminal problems, unemployment, and poverty. Broad inter-professional public action at every level of society is required for its solution.

The magnitude of the problem relating directly or indirectly to beverage alcohol in the United States can only be estimated. Surveys indicate that there are between seventy and one hundred million drinkers in this country today. This is approximately half the population, and the majority of these are occasional or moderate drinkers. Whether one approves or not, social drinking continues as a custom because people like to drink. All social customs and practices are complex, and all are accompanied by difficult and complicated problems of misuse.

Education is only one means through which man tackles his personal and social problems. Teaching youth about alcohol will not eliminate it misuse; the crux of man's problems with alcohol is within himself and not with the use of alcoholic beverages.

Accurate, unbiased, and well-presented classroom instruction about alcohol can be expected to influence today's parents indirectly and tomorrow's parents directly. Young people will have a broader and sounder foundation on which to base personal decisions about drinking practices and social responsibilities.

OBJECTIVES

Suggested Pupil Outcomes:

1. Define the differences between ethyl and methyl alcohol.
2. List common uses of ethyl and methyl alcohol.
3. Describe the food values found in ethyl alcohol.
4. Relate the history of alcohol in the early colonies.
5. Describe several effects of alcohol on the body.

6. List and explain the ramifications of excessive drinking on one's personal life.

7. Conclude the ramifications of excessive drinking on the family.

8. Interpret the ramifications of excessive drinking on the community.

9. Show, explain and illustrate the effects various media advertising may have upon the individual and his decision whether to drink or not.

10. Identify some common early symptoms of alcohol abuse.

MAJOR CONCEPTS

1. There are different types of alcohol.
2. Ethyl alcohol is found in alcoholic beverages.
3. Methyl alcohol is highly poisonous.
4. Alcohol has little nutritive value.
5. Beverage (ethyl) alcohol and industrial alcohol are manufactured differently.
6. Alcohol is used to manufacture many products.
7. Beverage alcohol can be used for medicinal reasons and may be classified as an anesthetic, narcotic, sedative, tranquilizer, or hypnotic.
8. Alcohol affects the body systems and organs.
9. Alcohol is absorbed readily from the stomach and small intestines.
10. Most of the alcohol that enters the body is eliminated by the kidneys via the urine.
11. The frequent and prolonged abuse of alcohol can cause sickness and nervous disorders.
12. The problem drinker usually has problems with his self-concept.
13. The use of alcohol is a factor in many safety problems.
14. The misuse of alcohol often effects employment and efficiency on the job causing financial hardship to the problem drinker's family.
15. The alcoholic is often rejected by a large segment of society.
16. Alcohol misuse causes difficulties with family relationships, especially in the areas of cooperation and respect, and frequently leads to separation or divorce.
17. Alcohol abuse causes more unemployment and some welfare problems.
18. The misuse of alcohol creates more crime, necessitating more police, more courts and remedial programs.
19. Alcoholism is an illness, but treatment is available.
20. The driver who has been drinking is a menace on the highway.

CONTENT OUTLINE

- I. Nature of Alcohol
  - A. Definition and properties
    - 1. Ethyl alcohol
    - 2. Methyl alcohol
  - B. Vitamins
  - C. Calories
  - D. Glandular action
  - E. Manufacture of alcohol
  - F. Industrial-commercial alcohol is poisonous
  - G. Commercial uses of alcohol in food and medical products, flavoring, solvents, medicines, and antiseptics
  - H. Medical uses

- II. The Use of Alcohol in the Early Days of America
  - A. Colonies
    - 1. Virginia
    - 2. New England
  - B. Prohibition and repeal

- III. Alcohol in the Human Body
  - A. Absorption
    - 1. Stomach
    - 2. Small intestines
    - 3. Bloodstream
      - a. Transport
      - b. Oxidation
      - c. Effects on systems
        - 1. Nervous
        - 2. Circulatory
  - B. Elimination

- IV. Alcohol and Problems
  - A. Personal problems
    - 1. Sickness, nervous conditions
    - 2. Employment
    - 3. Self-concept
    - 4. Safety
  - B. Family problems
    - 1. Financial
    - 2. Social
    - 3. Parental
    - 4. Marital
  - C. Community problems
    - 1. Safety
    - 2. Unemployment, welfare
    - 3. Remedial
    - 4. Crime
    - 5. Courts
    - 6. Police

- V. Decisions Regarding Alcohol Use
  - A. Economic aspects
  - B. Social drinking
  - C. Attitudes are learned

- VI. Alcoholism, A Sickness
  - A. Recognized as disease
  - B. Treatment and rehabilitation available
    - 1. Alcoholics Anonymous
    - 2. Hospital clinics
    - 3. Medication
    - 4. Antabuse - Disulfiran
    - 5. Psychiatric

LEARNING AND EVALUATIVE ACTIVITIES

1. Discuss the medicinal and industrial uses of alcohol.

2. Show a can of antifreeze or paint and study the contents used in the manufacture of the product.

3. Have students examine labels on bottles in the kitchen and medicine cabinet for alcoholic content.

4. Have students compare the body's use of alcohol with its use of proteins, fats, and carbohydrates.

5. Collect advertisements concerning alcoholic beverages and analyze them in class.

6. Discussion: How do the effects of alcohol on the human body wear off?

7. Discuss the elimination of alcohol by the body.

8. Class discussion: Excessive use of beverage alcohol may lead to problems.

9. Compare the cost of beverage alcohol and the cost of nutritious foods.

10. Guest Speaker: (welfare society): Discuss the family problems related to alcohol:
    - Financial
    - Work efficiency
    - Child neglect
    - Respect for family members

11. Discussion: Why would the following be interested in whether an individual would drink or not: family, church, government, liquor industry, welfare agencies, employers?

12. Investigate reports of the National Safety Council relating alcohol as a causal factor in motor vehicle accidents.

13. Guest Speaker: Why some people do not or should not drink.

14. Have local policeman discuss the problems caused by drinking drivers.

15. Reports: What is Alcoholism? What are the causes and signs? What are the methods in treating alcoholics?

16. Class discussion: What should be our attitude toward alcoholism? Consider:
    - Alcoholics are sick
    - Alcoholics can be helped
    - Alcoholics need greater public assistance and support

17. Guest Speaker: The role of Alcoholics Anonymous in helping alcoholics.

18. Discuss professionals available who can treat alcoholism.

19. Distinguish between ethyl and methyl alcohol.

20. Create posters: Uses of alcohol (preservative, disinfectant, drug).

21. Scrapbook: Have pupils make a scrapbook to include pictures and articles concerning the problems created by the use of alcohol.

22. List the reasons teenagers and adults give for drinking. Evaluate them.

23. Oral and written reports: The effect of alcohol in sports, driving an automobile, flying, and in occupational skills.

24. Debate: People who drink to excess are those who are unable to face their problems and are using alcohol as a means of escape.

25. Discussion: Why do individuals who know how alcohol affects sensory perception still drive after they drink?

26. Bulletin Board: Illustrate and display pictures of accidents and other losses attributed to alcohol.

27. Have students make a bulletin board for school sharing concerning the uses of alcohol in industry and medicine; and the effects of its ingestion on the human body.

28. Draw and label a figure of a man showing the systems and organs affected.

RESOURCES

__Filmstrip and Cassette:__

__Alcohol and Children__, BOCES #392-2, 15 minutes

DRUG EDUCATION

OVERVIEW

The Food and Drug Administration admits that there is widespread abuse and illegal trafficking in depressant, stimulant and hallucinogenic drugs. Lives are being shackled in chemical chains because the users do not recognize the potential dangers of these drugs. The users can become physically or emotionally dependent upon these drugs but they do not yet have the same social stigma that is associated with the use of narcotic drugs.

Drug abusers may come from any occupational, educational, religious, and socioeconomic group. An increasing abuse of marijuana among junior and senior high school students has been witnessed. This trend has been encouraged by a small number of misguided but highly articulate spokesmen who have attempted either to justify or to excuse the use of such drugs. It is wise, therefore, to focus attention on younger students by acquainting them with the basic medical and sociological facts concerning marijuana and the other "mind-expanding" drugs to enable them to develop desirable attitudes and behaviors before they are confronted by these proponents of drug use.

Our primary objective is the prevention of drug abuse. Such an objective must compete with the increase in anxiety and tension which causes individuals to seek relief through drugs, the self-destruction through drug abuse, and the increase in new drugs - all factors which give rise to drug abuse. The teacher should take this opportunity to teach students to analyze what they are reading since the students will undoubtedly read sensational articles concerning drugs as an aspect of class work and at home.

OBJECTIVES

Suggested Pupil Outcomes:

1. Express an awareness that drugs and household chemicals have proper uses, but that their potentially dangerous nature demands the student's respect.

2. Recognize the need to report to parents or teachers any strange feeling following the ingestion of any substance.

3. Appreciate the values of drugs and understand the interaction within the body.

4. Use prescribed drugs and volatile substances in a sensible manner which will contribute to long-range good health for themselves and for those in their community.

5. Relate an understanding of the factors which contribute to drug abuse.

6. Develop an awareness of the laws governing drugs and narcotics.
7. Outline briefly the history of the use of medicines and drugs.
8. Identify the kinds of mood modification caused by drugs.
9. Describe the varieties of drug use.
10. Describe some of the various substances which modify mood and behavior.
11. Analyze the various ways that drugs affect people.
12. Evaluate the relationship between the use of drugs and resultant changes in behavior.
13. Note the influence of peers and/or family on the use of drugs.
14. Relate the basic role drugs play in the control of disease and pain.
15. Differentiate among controls on purchase, possession and use of mood and behavior modifying substances.
16. Discuss the effects of certain drugs on different people at different times.
17. Explain how personal, social, family and environmental forces influence drug use, non-use or abuse.
18. Conclude various relationships of drug abuse to personal and social consequences.
19. Analyze the factors which influence self-medication.
20. Examine how the media influences the use of over-the-counter drugs.
21. Differentiate between prescription and non-prescription drugs.
22. Differentiate between habituation and addiction.
23. Describe the beneficial uses of various drugs.
24. Outline the conditions under which prescription drugs can be sold.
25. Relate how one's emotions and feelings affect decision-making.
26. Recognize that involvement with creative experiences improves one's self-concept and relations with others.
27. Explain one's feeling about the physical and social environment.
28. Respect the feelings and emotions of others.
29. Identify a variety of ways that one can express emotions.

MAJOR CONCEPTS

1. Drugs, in legal products, are medical tools that may have many benefits when properly used.

2. Drugs and other substances are used for many reasons.

3. Drugs and other substances, if misused, may be harmful.

4. Drugs may be classified according to their effects.

5. Production, distribution, and use of drugs are controlled by law.

6. Behavior patterns of the individual influence present and future health.

7. Individual acceptance of responsibility is essential to the wise use of drugs.

8. Health is the result of the interaction of the physical with the mental, emotional, and social areas of human development.

9. A knowledge of drugs - what they are, what their benefits are, and how they should be used - can contribute to the prevention of an actual drug abuse situation.

10. Your future can be significantly affected by some of the decisions which you make early in life.

11. The pre-adolescent and adolescent need to be a member of a group can be a factor in drug abuse.

CONTENT OUTLINE

- I. Sources and History of Use of Drugs
  - A. Definition of drugs
  - B. Main sources of drugs
    - 1. Plants
    - 2. Animals
    - 3. Minerals
    - 4. Laboratory
  - C. History of drugs
    - 1. Discovery
    - 2. Early experiments
    - 3. Modern use
  - D. Current research

- II. Prescription and Nonprescription medicines
  - A. Prescription medicines
    - 1. Criteria, e.g. severity of disease, age, weight
    - 2. Where purchased
    - 3. Necessity of following directions
    - 4. Disposal of left-over medicine
    - 5. Examples of medicines available only by prescription
      - a. Anti-infectives
      - b. Vaccines
      - c. Hormones
  - B. Nonprescription medicines
    - 1. Reasons for use
    - 2. Label directions
    - 3. Examples
      - a. Vitamins
      - b. Laxatives
      - c. Cold remedies
    - 4. Precautions to observe when taking nonprescription medicines

- III. Drugs Have Many Uses and Effects
  - A. Effective uses, e.g. relieve pain, prevent disease
  - B. Effects of drugs differ according to various factors
    - 1. Weight
    - 2. Sex
    - 3. Age
    - 4. Mood
    - 5. Health status
  - C. Unexpected response
  - D. Side effects
  - E. No response
  - F. Variations in dosage
  - G. Interaction of drugs taken together

IV. Drug Misuse
   A. Medicines are misused in various ways
      1. By sharing medicine without consultation of a doctor
      2. Through self-diagnosis
      3. Use of left-over prescription medicines
      4. Through overdosage - accidental or intentional
      5. Underdosage
   B. Dangers associated with misuse of drugs
      1. Tolerance
      2. Development of dependence - psychological, physical
      3. Personality changes - moods, goals, outlook on life
      4. Worsening of original condition
      5. Serious mental disorders
      6. Possible organic damage
      7. Death
   C. Various common substances have an abuse potential that can be harmful
      1. Alcohol
      2. Amphetamines
      3. Analgesics
      4. Barbiturates
      5. Certain foods
      6. Cough syrups
      7. LSD, mescaline, other hallucinogens
      8. Marijuana
      9. Narcotics
      10. Solvents
      11. Tobacco
      12. Tranquilizers
   D. Commonly abused drugs most frequently affect the brain and nervous system consequently altering body reactions
      1. Stimulate or depress the central nervous system
      2. Induce hallucinations, alter perception and performance
      3. Create a state of dependence
      4. Alter mood and behavior
   E. Reasons for misuse of drugs
      1. Result of a lingering illness
      2. As a "crutch"
      3. Result of habitual use
      4. Belief that abuse is a sign of maturity or sophistication
      5. Desire for peer acceptance
      6. Family members do
      7. Curiosity, desire to experiment
      8. Rebellion
      9. Dissatisfaction with self, school, etc.
      10. Because of disappointment
      11. Desire for instant gratification
      12. To avoid facing and solving daily problems
      13. For kicks
      14. Feeling of hopelessness

V. Common Household Products
   - A. Many products, properly used, provide essential benefits i.e. paint thinner, gasoline, cleaning fluids, rubbing alcohol
   - B. Reasons for misuse of such products
     - 1. By accident
     - 2. By experiment
     - 3. By failure to read and follow directions
     - 4. Lack of knowledge
     - 5. On a dare or challenge
   - C. Ways of misuse
     - 1. Swallowing
     - 2. Inhaling
     - 3. Injection
     - 4. Absorption through the skin
     - 5. Substitution - i.e. gasoline to start fire in barbecue pit
   - D. Potential consequences of product misuse
     - 1. Nausea, vomiting
     - 2. Suffocation
     - 3. Poisoning
     - 4. Organic damage
     - 5. Mental damage - temporary or permanent
     - 6. Death

VI. Assuming Increasing Responsibility for Personal Health
   - A. Part of growing up is becoming independent, responsible for personal health and the health of others
     - 1. A child must tell adults when he is ill
     - 2. A doctor's advice must be followed
   - B. Good health habits must be established early
     - 1. For a longer and happier life
     - 2. As a force in determining choice of work and play
     - 3. Preventive against the high costs of illness
     - 4. As a force in determinging future plans and successes
   - C. Habits develop in several ways
     - 1. Through motivation
     - 2. Through conscious effort
     - 3. Without conscious effort
     - 4. Through influence of friends and their behavior
   - D. Some habits affect health
     - 1. Personal health habits - i.e. eating, exercising, resting
     - 2. Study habits
     - 3. Safety habits
     - 4. Recreational habits
     - 5. Habits of using medicines, drugs, and other substances
   - E. Problems of drug abuse may be avoided by
     - 1. Making wise choices based on accurate information
     - 2. Having courage to say "no" to experimenting
     - 3. Knowing and respecting laws
     - 4. Recognizing the hazards of misusing any product
     - 5. Recognizing that healthy individuals do not need regular medication
     - 6. Recognition of everyone's responsibility in the prevention of drug misuse
     - 7. Being informed of agencies that enforce laws

VII. Medicines Have a Significant Relationship to Health

- A. Non-essentialness of medicines or drugs for the normal healthy person
- B. Dependence of the effectiveness upon several factors
    - 1. The specific health problem
    - 2. Promptness of seeking medical care
    - 3. Accurate diagnosis
    - 4. Suitability of medicine used
    - 5. Individual health status
    - 6. Accuracy in following directions for taking medicine
- C. All medicines have the potential for benefit or for harm according to their use

LEARNING AND EVALUATIVE ACTIVITIES

1. List examples of drugs which come from plants, animals, and minerals, and which are synthesized in laboratories.

2. Direct students in research to learn the early uses of drugs. Seek help from the librarian for additional references.

3. Ask a physician to discuss how treatment with modern drugs affects illness.

4. Discuss dangers of taking less than, as well as more than, the prescribed amount of a medicine.

5. Ask children to use a dictionary to study definitions of prescription medicines.

6. Explain main purposes of prescription medicines.

7. Have children ask their parents for what illnesses they commonly use non-prescriptive medicines and list such medicines commonly found in their home.

8. Invite a nurse to discuss constructive use of medicines motivated by positive attitudes of self-protection.

9. Invite a pharmacist to talk about the dangers and penalties of misuse of prescription drugs.

10. Identify proper uses of common household products.

11. Show children the warning label on a harmful substance and teach its meaning.

12. Identify the difference between use and misuse of products.

13. Describe constructive, safe ways to show independence - i.e. help family members.

14. Have children develop a list of responsibilities for health which they can assume.

15. Evaluate personal habits to determine their effects upon total health.

16. Ask students to write a short paragraph to support the fact that medicines are not a substitute for good health.

17. Have students write essays on the value of volatile materials and medicines properly used - and the dangers of these substances improperly used.

18. Describe some of the physical and psychological effects of improperly used drugs and volatile substances - both immediate and long-range.

19. Discuss the effect of drug abuse on one's future.

20. Discuss how great harm can result from "taking a dare" involving the use of unknown substances, candy from strangers, etc.

21. Discuss stories about discoveries of important drugs.

22. Discussions of reasons why children go to a doctor.

23. Discussion of information on prescription labels.

24. Collect and show labels to the class from prescription and nonprescription medicines.

25. Have children make posters on how drugs as medicines contribute to healthful living.

26. Have children describe how their friends affect their behavior. Discuss: "Should one always follow a friend's advice?" and "Are there disadvantages in following the leader?"

27. Role-play how to cope with pressure from friends who insist that others use drugs.

28. Have students list health problems that may result from drug misuse.

29. Ask children to survey their homes, under supervision of an adult, to learn where potentially harmful substances are stored. Report to the class on safe places to store substances.

30. Discuss the good and bad features of curiosity. Encourage pupils to look for positive ways to express curiosity.

31. Discussion: "How easy is it to say 'No'?"

32. Debate: "Is it easier to form good habits than to break bad habits?"

33. Dramatize a situation in which a student is urged by his friends to take a dare and ingest an unknown substance.

RESOURCES

Films:

Almost Everyone Does, BOCES #832-122, 14 minutes

Drugs: The First Decision, BOCES #831-261, 9 minutes

Drugs and the Nervous System, BOCES #832-88, 16 minutes

I Think, BOCES #832-120, 19 minutes

Filmstrip and Cassette:

Drugs and Children, BOCES #392-3, 30 minutes

Games:

Drug Attack, BOCES #110-30
    Drug Decision, accompanying programmed text, teacher's manual, and workbook

PERSONALITY DEVELOPMENT

OVERVIEW

Deeply-felt happiness is a constituent of mental health. Men and women who have a sense of well-being, a zest for working and playing, an ability to derive the utmost satisfaction from personal relationships may be said to be mentally healthy.

Mental health is far more than the absence of mental illness; it has to do with everyone's everyday life. It is the way that each person harmonizes his desires, ambitions, abilities, ideals, feelings and his conscience in order to meet the demands of life as he has to face it.

There are many different degrees of mental health or personal happiness. Perfect happiness comes to no one nor is anyone ever in perfect mental health all of the time. A single characteristic cannot be taken as evidence of good mental health, nor the lack of an attribute as evidence of mental illness.

A normal individual has a satisfactory concept of himself and of the culture in which he lives. He can control his emotions and adequately meet situations that occur in his environment. The observable features of the adjustment is the individual's personality - the sum total of traits and characteristics that makes each person a unique individual.

The school is usually thought to rank second to the family as most important in affecting the mental health of children.

OBJECTIVES

Suggested Pupil Outcomes:

1. Display control and understanding of his feelings in a positive way.
2. Analyze the influence of various kinds of persuasion on behavior.
3. Analyze the relationship between one's perceptual field and reality.
4. Identify factors which may alter one's perception of reality.
5. Describe the consequences of accurate or distorted reality perception.
6. Compare the relationship between one's self-concept and how others see one.
7. Describe how man's physiological and psycho-social needs may be a motivating force that will orient his behavior.

MAJOR CONCEPTS

1. Knowing ourselves helps us to live with others. That the pursuit of happiness is an ideal goal, but not a routine achievement helps one to recognize what mental health is:
    How you feel about yourself
    How you feel about other people
    How you are able to meet the demands of life

2. As we grow up we learn to control our own behavior.

3. We develop and change habits because of experience.

4. Leisure time activities help develop creativity, friendships, skills.

5. Consideration and respect for others is important.

6. It is important to have respect for one's self.

7. Emotions are normal.

8. Friendships contribute to a person's well-being.

9. The personality consists of one's total "self" and his characteristic ways of reacting to life situations.

10. A healthy personality relates well to others and is able to adjust to the emotional, social and physical stresses of life.

11. Since inherited traits and life experiences are different for each human being, each of our total personalities is different from other personalities.

12. Body structure and function affect individual behavior and one's relationship with others.

13. The newborn receive a share of the inherited characteristics from each parent.

14. The range of normal growth and development of individuals is influenced by heredity.

15. The potential to achieve a certain body height appears to be an inherited trait.

16. We inherit the color of our skin, hair and eyes, hair texture, eye shape and other observable external characteristics that make us unique persons.

17. It is generally agreed that the tendency to achieve a certain level of intelligence is inherited.

18. Visual acuity, range of hearing, sensitivity of touch, ability to perceive odors, and similar attributes appear to be inherited.

19. While many factors, such as illness and nutrition may influence the rates our bodies grow, the basic determiner of growth potential is inheritance.

20. Personality traits such as disposition and honesty, are not inherited but are largely the result of family and other environmental influences.

21. Skills (actual performance) such as playing the piano are not inherited, but potentialities for learning the skill (aptitude) are.

22. All people should have some insight into their own capabilities, strengths and weaknesses, and how to use these for further growth.

23. A need or drive is a conscious or unconscious desire that arouses activity in people.

24. Basic human needs are those whose satisfaction is necessary for man's essential welfare.

25. Needs for food, air, water and sleep are examples of man's basic physiological needs.

26. Individuals have psychological needs that are considered basic to their well-being. (Need for love, approval, independence, security, and feeling significant.)

27. As the individual grows and develops, he should become more responsible for himself and increasingly more considerate of other people.

28. Even though each person has his own unique way of growing, there are growth patterns that occur among different age groups.

29. Each individual affects the groups to which he belongs.

30. Feelings or forces that energize people's behavior are known as emotions.

31. Any given emotion (i.e. anger) may be expressed in either a positive or negative manner.

CONTENT OUTLINE

- I. Personality
  - A. Concept of personality
    - 1. Definitions
    - 2. Healthy personality
  - B. Development of personality
    - 1. Influence of environment and experience
    - 2. Influence of heredity
      - a. Body structure
      - b. Physical features
      - c. Intelligence
      - d. Sensory efficiency
      - e. Rate of physical growth
      - f. Sex
  - C. What characteristics are not inherited?
    - 1. Traits
    - 2. Specific skills
  - D. Basic human needs
    - 1. Physiological needs
    - 2. Psycho-social needs
      - a. Psychological security
      - b. The need for love
      - c. The need for approval
      - d. The need for independence
      - e. The need to feel significant

- II. Growing Toward the Teen Years
  - A. Development of the physical self
    - 1. Major growth periods
      - a. Infancy and early childhood
      - b. Middle and late childhood
      - c. Puberty and adolescence
        - 1. Growth rate of boys and girls
        - 2. Changes in the skin and hair
    - 2. Attitude towards the physically developing self
  - B. The developing social self
    - 1. The individual and the group
    - 2. Peer relationships
    - 3. Sexual differences in social development
    - 4. Relationships within the family
      - a. Relationships with parents
      - b. Sibling relationships
  - C. Emotional development
    - 1. The nature of emotion
    - 2. Commonality of emotions
    - 3. Origin of emotions
    - 4. Emotional expression
      - a. Positive release of feelings
      - b. Negative or self-defeating responses
    - 5. Effect of emotions on the body

LEARNING AND EVALUATIVE ACTIVITIES

1. Discuss growing responsibilities now - care of possessions; respect for others' possessions; responsibilities for own appearance, actions.

2. Develop a sense of responsibility in classroom by having class "chores" for which the responsibility rotates.

3. Conduct a "buzz" session on how to be a leader, how to be a follower.

4. Discuss social skills, in the home, school, community, in your friends' homes (making introductions, etc.).

5. Discuss the differences between teasing and practical jokes.

6. Discuss the use of "bad" words.

7. Have a panel discussion on the reasons for rules and laws.

8. Have the students keep a record of the use of their leisure time for a weekly period. Discuss how waste of time can be avoided.

9. Discuss differences in people: culture, customs, religion, handicaps, races, economic groups.

10. Discuss how the appearance and attitude of older students influence younger students.

11. Discuss how we can meet and solve problems. Where is help available?

12. Discuss how to understand or tolerate another person's opinion. How can you control your reactions?

13. Conduct a class discussion on living with older people in the home, respecting rights of adults, school, community.

14. Discuss how your own behavior makes you feel - good behavior; poor behavior.

15. Discuss honesty, dishonesty, its effect on self and others.

16. Discuss what emotions are, how they are shared by all persons, but sometimes expressed differently.

17. Discuss ways in which the emotions develop.

18. Teacher: have a reading list of stories in which students can see the characters in a variety of emotional experiences.

19. Dramatize or discuss negative emotional behavior. Discuss constructive outlets for "pent up" anger; letting off steam, preventing tantrums.

20. Discuss worry, what causes it, how to avoid it, how to accept it.

21. Discuss Charlie Brown's book "Friendship Is..." - the give and take in a relationship.

22. List the qualities you like in other people. Which of these do you feel are the most important?

23. Discuss cliques (why they exist, etc.).

24. Discuss different types of friendships. (Older people, younger, sharing of an interest; community; school.)

25. Discuss attitudes that are important in friendship - forgiving, keeping confidences, observing privacy, avoiding possessiveness.

26. Suggest that persons tend to react in a positive manner to attitudes of friendliness and courtesy, and in a negative manner to expressions of hostility. Discuss with students and test this hypothesis by recording the initial reactions of people whom they meet throughout the day.

27. Have pupils chart the size, height and weight of all members of his family. Discuss the personal potential growth in light of the differences or similarities.

28. Discuss differences between inherited and acquired characteristics.

29. Have class discussion about the "Stages of Growth", including newborn, infancy, childhood, adolescence, adulthood. Discuss growth changes that take place at each stage and emphasize the idea of variations in growth at each stage.

30. Discuss the reliability of old sayings such as: "Redheads have a terrible temper", "Fat people are jolly", "Scotsmen are tight", "Negroes have a natural rhythm".

31. Have children list human traits that can be changed.

32. List kinds of physical care that children need; food, clothing, shelter, etc. What are some of the effects if children don't get such care and protection? What things do children need protection from?

33. Have the class respond to: "The traits I like or dislike in a friend", or "What I like best about boys, or girls".

34. Discuss the Golden Rule, fairplay, generosity and kindness.

35. Discuss the statement, "Life without emotions would be dull and colorless".

36. List on the board some positive ways to manage emotions, such as anger: a.) physical exertion, b.) laughing it off, c.) talking it out with someone.

37. Have pupils reflect upon ways in which fear can be constructive, protective.

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38. Compare good study habits vs. bad study habits. A class group could develop a skit.

39. Arrange a hobby show in class to demonstrate, display and explain hobbies.

40. Write, perform, design an original play.

41. Have class read stories and give book reports related to differences in peoples.

42. Have the students demonstrate how to solve a class, school or community problem.

43. Make a list of things about yourself you would like to improve and how you will go about doing so.

44. Have a panel discussion on how boys and girls should act with older persons. Try to include people from different age groups on the panel.

45. Write a paragraph: "What You Expect of a Friend", "How You Are a Friend".

46. Ask the children to imagine a world in which everyone had the same personality. Through discussion or role-playing, the children should realize that such a world would be impossible.

47. Make a bulletin board display showing needs of physical care that children have: food, clothing, shelter, etc.

48. Have class make a list of physical abilities at each stage of growth, including, infancy, early, middle and late childhood, adolescence.

49. Write a composition about how it feels to be "new" or "different" in a new neighborhood.

50. Have each pupil make a list of "Traits I Like About Myself", "Traits I Would Like to Change". Have them write out a plan for overcoming the undesirable traits. Notice the preponderance of physical traits.

51. Form committees to develop themes such as:
    How can one develop more responsibility for the well-being of others? In class? At home?
    How can one develop more responsibility for his own behavior? In class? At home?
    How does the way one behaves affect the way parents and other adults act or feel?

52. Have the pupils discuss the fashions, words, dances or games that are "in" with their peer group.

53. Role-play tension-arousing situations. Discuss the possible solutions.

RESOURCES

Book:

Walk in My Mocassins, Mary Phraner Warren; Westminister Press, Chicago, Illinois

Films:

Barbara, BOCES #831-188, 7 minutes

Friends, BOCES #832-295, 18 minutes

Granny Lives in Galway, BOCES #833-121, 26 minutes

Hello Up There, BOCES #831-201, 9 minutes

I Am, BOCES #832-231, 15 minutes

Incredible Cat Tale, BOCES #832-324, 22 minutes

Inside/Out Series: BOCES (video cassettes), 15 minutes each
- Because It's Fun
- Bully
- But Names Will Never Hurt?
- But They Might Laugh
- Can Do/Can't Do
- Getting Even
- How Do You Show
- I Dare You
- Jeff's Company
- Just Joking
- Lost is a Feeling
- Must I/May I
- Someone Special
- When is Help
- Yes, I Can

Rock in the Road, BOCES #831-136, 6 minutes

Trick or Treat, BOCES #832-128, 15 minutes

What Should I Do Series:
- The Fight, BOCES #831-278, 6 minutes
- The Game, BOCES #831-279, 6 minutes
- Lunch Money, BOCES #831-280, 6 minutes
- The New Girl, BOCES #831-282, 6 minutes
- The Project, BOCES #831-281, 6 minutes

Why You Are You, BOCES #831-270, 9 minutes

Game:

The Ungame: Tell It Like It Is, BOCES #110-29

Kits:

Dimensions of Personality Series:
- *Here I Am*, BOCES #123-9 (4th grade)
- *I'm Not Alone*, BOCES #123-10 (5th grade)
- *Becoming Myself*, BOCES #123-11 (6th grade)

DUSO II, BOCES #123-18

HUMAN SEXUALITY

OVERVIEW

Sexuality is more than a means of physical expression; it is one of the most significant aspects of the human personality. It is closely related to our social and emotional adjustment and to our physical development. The manner in which we direct our sexuality and adjust to our changing sex role can relate directly to our happiness, and to success as a member of a family and of society.

A child learns of his sexuality at infancy when he first experiences the warmth and tenderness of feeding at his mother's breast. This learning continues as the child's relationship with his parents continues to develop. Today, a need exists to make children aware of the significance of their sexuality. The school is the only institution which receives all children over a prolonged period. It has the challenging opportunity to supplement and contribute to their education, and, in some instances, to affect the distorted view of life that they are receiving from television, movies, certain magazines, and literature.

The study of human sexuality is a comprehensive and extensive study which should be taught in the home from infancy and supplemented in the school until maturity. Pupil participation in the suggested activities should help to produce desirable social and moral attitudes, practices and personal behavior. This unit not only includes activities that can lead to a knowledge of physiological and psychosexual facts of reproduction, but also includes activites that can help children to develop positive attitudes and practices that should lead to a knowledge of understanding of self, a mature adulthood, and a happy family life. Further, this unit is intended to satisfy the children's desire to understand the biological man, the meaning of character and value judgments as they relate to sex, and to learn self-discipline in sex control.

OBJECTIVES

Suggested Pupil Outcomes:

1. Identify the individual differences within the male sex.
2. Identify the individual differences within the female sex.
3. Compare the physical differences between males and females.
4. Describe normal incidents of growth and development.

5. Explain that life comes from life.
6. Describe how reproduction is essential for survival of any kind of plant and animal.
7. Explain the rudiments of reproduction.
8. Describe reproduction in plant life.
9. Describe reproduction in animal life.
10. Explain that all animals produce babies of the same kind.
11. Identify the physical changes which take place in boys.
12. Identify the physical changes which take place in girls.
13. Identify the emotional changes which take place in boys.
14. Identify the emotional changes which take place in girls.

MAJOR CONCEPTS

1. Human sexuality, which involves our growth and development, as well as the complex drives associated with love and marriage, is the basis for many facets of our behavior.
2. Living things reproduce in order to perpetuate the species.
3. The process of mating is an evolutionary process.
4. Sexual reproduction has advantages over asexual reproduction.
5. There are similarities and differences in human reproduction and in that of lower animals.
6. There are many anatomical and physiological differences between the human male and female.
7. Many significant changes take place during puberty.
8. Living things give birth in a variety of ways.
9. The human fetus develops in a unique manner; normal birth occurs when the fetus is developed sufficiently to survive.
10. Masturbatory experiences may follow genital handling upon reaching maturity.
11. The menstrual cycle is a natural event in the life of a young girl which indicates she has reached one new area of maturity.

CONTENT OUTLINE

I. Background Orientation and Terminology
  A. Parts of the body
  B. Functions

II. Growth and Development
  A. Understanding our changing body
    1. Infancy
    2. Early childhood
    3. Preadolescence
    4. Adolescence
    5. Maturity
    6. Old age

III. Sex-Related Topics
  A. Secondary sex characteristics
  B. Menstruation
  C. Masturbation
  D. Homosexuality (lesbianism, transvestitism)
  E. Infatuation, puppy love and crushes

IV. Sexual Maturity and Responsibility
  A. Development of standards
  B. Search for identity
  C. Seeking peer support

LEARNING AND EVALUATIVE ACTIVITIES

1. Discuss the anatomy and physiology of the reproductive system of selected lower mammals and compare them with the human reproductive system.

2. Discuss the variations in litter size and the factors influencing this; relative helplessness of human baby compared to lower animals; advantages to offspring when human parents remain together to protect and train offspring.

3. While using transparencies of male and female skeletal and muscle systems, discuss the similarities and differences. Emphasize how these differences are related to different roles in life.

4. Discuss pregnancy, duration of pregnancy, no difference in pregnancy because of ethnic group, all ethnic groups fertile with one another.

5. Relate how parental hereditary characteristics are transferred to offspring.

6. Draw pictures of self - (boy or girl).

7. Write short paragraphs on "Where did you come from?" Follow with discussion to clarify misconceptions.

8. Identify and discuss slang and baby language. Guide children to use of correct terms.

9. Display life-sized anatomy chart.

10. Ask children to bring in illustrations of parents and their offspring (plant, insect, animal and human).

11. Ask the children to cut out pictures from magazines illustrating care and attention of new arrivals.

12. Ask the children who have younger brothers and sisters to tell the class how these younger children are unable to do things the other older children can do.

13. Use a full length mirror in the classroom to see differences in growth, etc. (male and female).

14. Have boys discuss what they like about being male or girls discuss what they like about being female. (Teachers should emphasize similarities rather than differences.)

15. To illustrate animal birth from eggs within the body provide the classroom with a pet (mouse, rabbit or hamster).

16. To illustrate the recent physical growth of each child use previous health records. Compare averages of girls and boys.

17. Discuss misconceptions regarding masturbation and menstruation.

18. Discuss the secondary sex characteristics that occur at different ages - infancy, early childhood, preadolescence, adolescence and maturity.

19. Discuss thoroughly optimal grooming habits of both boys and girls.

20. Discuss all myths and misconceptions they have heard about sexual development, menstruation, nocturnal emissions, masturbation, etc.

21. Provide a question box for the students who are reluctant to ask questions in class.

22. Demonstrate the lack of physical awareness between the male and female of selected lower animal species: example - sea star.

23. Use the frog as an example of an animal in which there is both physical awareness and physical contact.

24. Relate the facts concerning the journey of the salmon to the headwaters; has sexual awareness but no physical awareness; cooperation in construction of nest.

25. Show students transparencies or charts of a boy and girl during the preadolescent and adolescent period of their lives. Have students discuss the observable differences. Discuss the following physical, chemical (hormonal) and personality changes that occur during puberty:

    MALE - Deepening of the voice, enlargement of the testicles, sperm cell production, ejaculation, increased production of androgens, pubic hair, axillary hair, beard appears, surge in growth, cardiovascular and respiratory growth, increased shoulder breadth, larger chest cavity, increased muscular definition, greater agility and motor coordination, development of reaction speed and perceptual-motor skills, changes in metabolism, members of the opposite sex become increasingly attractive, many new relationships and problems develop, masturbatory experiences, heterosexual activity likely to begin.

    FEMALE - Voice deepens slightly, changes in metabolism, increased production of estrogens, pubic hair, axillary hair, onset of menarche, ovulation, breast development, deposition of fat in skin, development of heterosexual feelings, masturbatory experiences not as likely as in male.

    Stress the reasons for the changes and why they are necessary for maturation.

26. Discuss awkwardness and lack of coordination as being characteristic of adolescence.

27. Discuss condition of acne and importance of skin care and good grooming.

28. Ask the students to give illustrations of how their parents showed love - affection from early childhood to the present. Ask the students how they returned this love and affection.

29. Discuss with the class why a sports hero, movie star or TV idol is popular. Compare their present favorites to 5 years ago. Have them give reasons for their personal choice of favorite celebrities.

30. Discuss the difference between love and infatuation.

31. Discuss how children are taught their sex roles by their parents, friends and society, from infancy to adulthood.

32. Ask the class to discuss the meaning of peer pressure and how it often results in conformity.

33. Establish definitions of petting, necking and making out. Ask the class if their parents are aware of these present-day definitions.

34. Have children label parts of body in a drawing (ditto, or bulletin board drawing).

35. Have children interpret pictures cut from magazines illustrating care and attention to new family arrivals.

36. Have children write about how they felt when they first got a new brother or sister.

37. Plan and carry out the preparation of a class picture book (part devoted to mother's role; part devoted to father's role).

38. In small groups (single sex) have students discuss what they find to be more embarassing aspects or areas of concern accompanying the changes in their bodies. These should be summarized and presented to the total class.

39. Elicit from the class a list of acceptable hobbies and games including activities that an individual can do by himself.

40. Have class share where and how they first learned of human reproduction and their feelings and reactions at the time.

41. Ask each child to write a short paper titled "Why X is my Best Friend?" List on the board (from student response) the qualities of friendship.

42. Discuss the importance of friendship, the qualities of friendship, and how to be a good friend.

43. Cite examples from one's childhood of outgrowing certain friends because of different rates of developing maturity.

44. Discuss activities which students enjoy working on together, i.e. plays, athletics, committees, etc.

45. Discuss this question, "Is it necessary for me to do everything that my friends do and am I strong enough to refuse?"

46. Debate the topic: "Today Anything Goes, If You Can Get Away With It."

47. List and discuss the most troublesome or controversial issues arising between adolescents and adults.

48. Ask the boys and girls to make separate lists of acceptable behavior patterns and manners. Ask the boys to comment on the girls' list and ask the girls to comment on the boys' list.

49. Discuss some situations that might arise from a student not being allowed to do what his friends are doing.

50. Ask student to share examples of how media presents homosexuality. Assess these for bias.

51. Discuss with the class the question, "What do you do to avoid loneliness?"

52. Ask the girls and boys (separately and anonymously) to write definitions of love. Compare lists to determine appreciable similarities or differences.

RESOURCES

Books:

About Eggs and Creatures That Hatch From Them, Melvin John Uhl; Melmont Publishers, Inc., Chicago, Illinois, 1966, 591
U

Animals and Their Young, Glenn O. Blough; Row, Peterson and Company, Evanston, Illinois, 1949, 591
B

Curriculum Guide for Human Sexuality K-12, Putnam BOCES. 1974 Edition available from Cortland-Madison BOCES. $7.00 purchase price, Putnam/Westchester BOCES, Yorktown Heights, New York 10598

Junior Science Book of Trees, Robert S. Lemonmon; Garrard Press, Champaign, Illinois, 1960, 582
L

Monarch Butterfly, Marion W. Marcher; E.M. Hale and Company, Eau Claire, Wisconsin, 1960, 595.7
M

Play With Plants, Millicent E. Selsam; William Morrow and Company, New York, 1949, 581
S

Twins, Marguerite Rush Lerner, M.D.; Medical Books for Children; Lerner Publications Company, 241 First Avenue North, Minneapolis, Minnesota 55401, 1961, 612.6
L

Films:

Boy to Man, BOCES #832-27, 16 minutes

Girl to Woman, BOCES #832-28, 16 minutes

Growing Embryo, BOCES #832-92, 17 minutes

Filmstrips and Cassettes:

Growing Into Manhood, BOCES #333-90, 26 minutes

Growing Into Womanhood, BOCES #333-91, 26 minutes

Chart:

Human Reproduction, BOCES #CH-3

Model:

Human Development, BOCES #MO-1

FAMILY LIFE EDUCATION

OVERVIEW

Students should be provided opportunities to explore both the changing role of the family in present-day America as well as the functions of the family. These functions are essential to the survival both of the individuals who make it up and of the society of which it is a part. Generally, these functions include the satisfaction of personal drives and desires, perpetuation of the race, transmission of the culture and personality development of children.

Particular emphasis is placed on the family as the basic unit of our society in providing for an individual's mental, physical, and social health needs. A frame of reference is provided as to the importance of the family in our culture, the relationship of family members to each other and the reciprocal importance of families and individuals to each other. Through these learnings, the students should develop attitudes, knowledge and skills which enable them to contribute effectively to their present and future family life. This includes development of realistic attitudes regarding the death of a family member, a friend or a pet. Emotional conflicts must be resolved in a positive way to assure good mental health.

OBJECTIVES

Suggested Pupil Outcomes:

1. Identify the family as the basic social unit in society.
2. Identify the types of family groups or units in society.
3. Define the role of various family members.
4. Identify characteristics of one's family environment.
5. Demonstrate motor skills associated with the home environment.
6. Care for personal belongings in the home.
7. Identify individual and family recreational activities.
8. Explain the significance of holidays as they relate to the family.
9. Apply good grooming habits at home.
10. Apply good health habits that contribute to personal growth.

11. Identify economic factors which cause most parents to seek employment.
12. Explain the use and importance of money in the family unit.
13. Demonstrate a positive attitude toward his cultural heritage.
14. Explain why choices must be made in satisfying wants and needs.
15. Analyze factors which cause individuals to adapt to change.
16. Demonstrate attitudes which promote harmony.
17. Explain how the roles of men and women vary from society to society.
18. Analyze heredity as a factor in role arrangement of family members.
19. Analyze environment as a factor in role arrangement of family members.
20. Explore the meaning of death.
21. Develop ways of dealing with the feelings brought about by the death of a loved person or pet.
22. Define death as an unavoidable part of the life process.

MAJOR CONCEPTS

1. The family is the basic social institution imbued with the responsibility for providing its members with kinds of experiences which they need for their maximum physical, mental, social, emotional, and spiritual development.
2. Nuclear groups are the basic family pattern in the United States.
3. The extended family includes relatives outside the nuclear group; aunts, uncles, cousins, and grandparents.
4. Children are adopted so they may share the love and experiences of family life.
5. In some families, a new father or a new mother may be chosen to fill the necessary parent role.
6. Individual members of the extended family (such as grandparents) may, for many reasons, become a part of the nuclear family.
7. Every family shares responsibility for making its community a better place to live.
8. Community life is the by-product of the quality of family living within the community.
9. Since the family is a small society, responsible communication can lead to wise decisions, but it is important that all family members have the opportunity for responsible self-expression in family affairs.
10. Parental decisions are usually made with the welfare of the total family in mind.
11. The family is the setting in which opportunities are provided for each member to grow into a responsible, independent, healthy individual.
12. The independent nature of family life requires that each member develop a sense of responsibility.
13. Family problems can be solved when all family members work as a unit.
14. We feel more secure within the family when we make decisions and accept the consequences.
15. The moral and spiritual values prevailing in the family group will help to shape family relationships.
16. Changes that occur in daily living affect family life.
17. Leisure time activities affect the development of wholesome family morale.
18. Membership in a family can give one pride.

19. Children's learning the value and significance of money is essential to their growth into responsible adults.

20. Family patterns differ throughout the United States, and throughout the world.

21. Health practices may vary because of differences in a family's heritage.

22. Behavior as males or females is partly determined by heredity, but is largely learned within the family setting.

23. Individuals learn to be masculine or feminine by emulating the men and women they know.

24. Sex is inherited and forms the basis for our sexuality throughout life.

25. Available role models are essential to children's developing sex roles in later life. (i.e. family members, public figures, historical figures, etc.)

26. Free and open two-way communication between members can increase the effectiveness of the nuclear family group.

27. Children may learn to accept the physical realities of death without apparently feeling a sense of oppression and doom.

28. Children need to be prepared for the death of a family member or pet.

29. By learning to accept death as a part of the life cycle, an understanding of the emotional attitudes surrounding death will be fostered.

30. There are certain effects of death on the remaining family members which must be discussed openly with children.

31. Ritual, at the time of death of a significant other, provides security at a most insecure moment.

32. The very involvement of children in the sorrow of the family can be a source of maturation.

33. Children should be allowed to vent their feelings regarding life and death.

34. Reactions to death may include anger, protest, sadness, loneliness, and abandonment.

CONTENT OUTLINE

I. Family as a Social Unit
    A. Family groups
        1. Nuclear families
        2. Extended families
        3. Adoptions
    B. Family dynamics
        1. Government in the family
        2. Communication in the nuclear family
        3. Variations in family patterns
        4. Family activities
        5. Health of family members
        6. Effects of death on family members
    C. The role of the family in the community
        1. Social
        2. Economic
        3. Cultural
    D. World influence on individual families
        1. Family patterns in different countries
        2. Cultural heritage

II. Role Arrangements in Family Life
    A. Maleness and femaleness
        1. Heredity
        2. Environment
        3. Learning sex roles
    B. Effects of role reversals

LEARNING AND EVALUATIVE ACTIVITES

1. Discuss differences between nuclear and extended families, including families where adoption or remarriage is concerned. Note differences, similarities.

2. Students should contact their grandparents (or persons of grandparents' generation) and give an oral report on how the grandparents' childhood was different from their own.

3. As a social studies unit, the children could trace the basic changes in the American family from the colonial period to the present. Also, compare the changing role of family members and the economic and social role differences of the family and society.

4. Have the class discuss the reasons why the family is the place for bearing and rearing children. Raise questions pertaining to care of the young, provisions for housing, the wise use of money, etc.

5. Discuss: "What important contributions do adopted children make to a family?"

6. Discuss reasons why the nuclear family may be extended.

7. List the cooperative activities which families carry out to make their community a desirable place to live.

8. Discuss authority in a family in terms of responsibility. (i.e. Who has the authority? How is authority used? Why is authority delegated? How is authority divided? How is authority not delegated?)

9. Encourage children to participate in home activities to acquire a sense of belonging.

10. Provide an opportunity for the pupils to discuss highlights in family life: Honors won by members of a family, anniversaries or birthdays celebrated at home.

11. Develop ideas as to how a family can adjust to changes in the family pattern - new baby, illness, working mother, death of family member, pet.

12. Discuss the affect of the death of a pet.

13. Ask for a report of true experiences of home sharing tasks.

14. Set up with the group a good housekeeping code and a schedule of duties in the classroom.

15. Have each child make a list of home duties in which he can participate.

16. Have the children tell what the different members of the family can do best.

17. Discuss the natural changes that occur in everyone's life; new members, deaths, moving, illness, divorces, remarriages, and loss of jobs.

18. Invite a minister, social worker, or a youth leader to discuss these changes from their special points of view.

19. List things parents do that might show love; list what students do for other family members at various times to show they love them (e.g., during illness, daily, on special days or at time of death in the family).

20. Teach the children games that can be played while traveling, on rainy days, and on special occasions.

21. Encourage the creative use of various materials; old Christmans cards, drinking straws, colored paper, cloth.

22. Encourage the class to prepare a seasonal basket for a family in need.

23. Invite parents or older students to class who have visited foreign countries or interesting places in our own country. Have them explain the similarities and differences in home life and family living of families they have seen. (This could also include students with foreign backgrounds.)

24. Show film or video cassette such as "Rabbit" and "In My Memory" and discuss the role reactions of various family members.

25. Have the children write a paragraph entitled "What My Home Means To Me."

26. Discuss the benefits pupils receive from parental and teacher discipline and the importance of developing self-discipline.

27. Discuss each child's role in each of his household duties.

28. Prepare charts or graphs for self-evaluation on these home responsibilities.

29. Ask the students to tell of some personal experiences in which the consequences of making right and wrong decisions were recognized.

30. Plan a debate on "Parent Selection of Television Programs" vs. "Children's Selection of Television Programs."

31. Have the class discuss qualities they admire in different people.

32. Arrange bulletin board with pictures of people expressing different moods. Discuss. Explain how moods can change and why.

33. Make a list of activities for a child who needs to entertain himself at home.

34. Plan puppet plays about family life.

RESOURCES

Books:

Aesop's Fables, A Keith Jennison Book; Franklin Watts, Inc., A Division of Grolier Inc., 575 Lexington Avenue, New York, New York 10022, 398.2
A

A Father Like That, Charlotte Zoloton; Harper and Row Publishers

Anne and the Old One, Miles, Little; Brown and Company

Appointment with Death, Alvin N. Rogness; Thomas Nelson and Sons Publishing Company

Charlotte's Web, E.B. White; Harper and Row Publishers

The Dead Tree, Alvin Tressett; Parents Magazine Press

Getting It All Together, Michael Capizzi; Delacorte Press, Dell Publishing Company, Inc.

Walk in My Moccasins, Mary Phraner Warren; Westminister Press, Chicago, Ill.

Films:

Family Life in India: *Ten of Us*, BOCES #832-206, 13 minutes

Family of the Island: *Her Name is Wasamatha*, BOCES #831-253, 11 minutes

Inside/Out Series: BOCES (video cassettes), 15 minutes each
- *Breakup*
- *Brothers and Sisters*
- *Home Sweet Home*
- *I Want To*
- *In My Memory*
- *Living With Love*
- *Love Susan*
- *Travelin' Shoes*

Old Sheepdog, BOCES #831-320, 10 minutes

Perils of Priscilla, BOCES #832-125, 16 minutes

Rabbit, BOCES #832-328, 15 minutes

Selfish Giant, BOCES #833-143, 27 minutes

Teiva - A Boy Prepares for Manhood, BOCES #832-101, 22 minutes

World of a Different Drum, BOCES #832-125, 12 minutes

HEREDITY AND ENVIRONMENT

OVERVIEW

Everything you are and everything everyone can be made to be depends always on [illegible] potentialities of heredity working together with the possibilities of environment. Great responsibility is placed on the geneticist and the layman with the increase in knowledge and understanding of the basic genetic mechanism of man and man's increased ability to influence this basic potential through environment. The research and explorations of the geneticist into the nature of nucleic acid, the possibility of modifying nucleic structure, the mapping of chromosomes, raises the question again "What is life?"

OBJECTIVES

1. Demonstrate a knowledge of the interrelationship of heredity and environment. Utilize this knowledge in forming attitudes and behavior so that self-improvement occurs.
2. Define and differentiate the following:
    - body cell
    - reproductive cell
    - gene
    - chromosome
    - DNA
3. Describe the differences between genetic and somatic variations and disorders.

MAJOR CONCEPTS

1. Living creatures reproduce and grow as they react and are stimulated by environment.

2. Organisms inherit traits which modify the environment and they may become modified themselves as they react to experiences.

3. Each parent organism contributes its own peculiar characteristics to its offspring.

4. Life starts as a single cell which results from the union of two reproductive cells.

5. Potentialities of all characteristics of the living organism are passed along in the fertilized cell.

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CONTENT OUTLINE

- I. Is There a Relationship Between Reproduction in One-Celled Animals and Growth in Higher Animals?
  - A. How do fish reproduce? Birds? Mammals?
  - B. How do one-celled animals and plants reproduce?
  - C. In higher forms of life, what two cells are necessary to start a new life?
- II. Are Human Beings Mammals and How do You Know?
- III. What is Meant by the Term Heredity?
- IV. What Besides Heredity Influences the Development of the Personality?
- V. Why Does a Human Baby Need a Family?

LEARNING AND EVALUATIVE ACTIVITIES

1. At the beginning of the school year have a project - mating a pure strain brown mouse with a pure strain white mouse. Have children predict color combinations and ratio of brown and white.

2. Collect frog, toad, salamander eggs and watch, record and illustrate developmental stages. (Teacher: consider gestation period of animal selected.)

3. Construct a bulletin board display showing cell structure.

4. Observe by microscope potato or onion cells, noting nucleus, cytoplasm and cell membrane.

5. Read and discuss division of fertilized egg cells as applicable to multiple birth.

6. Observe paramecium dividing (bioscopic activity).

7. Discuss ancestry of various plants, flowers or animals.

8. Plant, observe and record growth of seeds in different environments.

9. Observe natural reseeding in school grounds or in neighborhood, e.g. dandelion, milk weed.

10. Construct dioramas to show seasonal changes and protective colorations.

11. Draw maps showing migration routes and cycles of various wildlife.

12. Observe and discuss home building of animals.

13. Make reports and illustrations showing hibernation and estivation of various animals.

14. List things man does to modify environment to better suit his needs. (Adjusting clothing to temperature.)

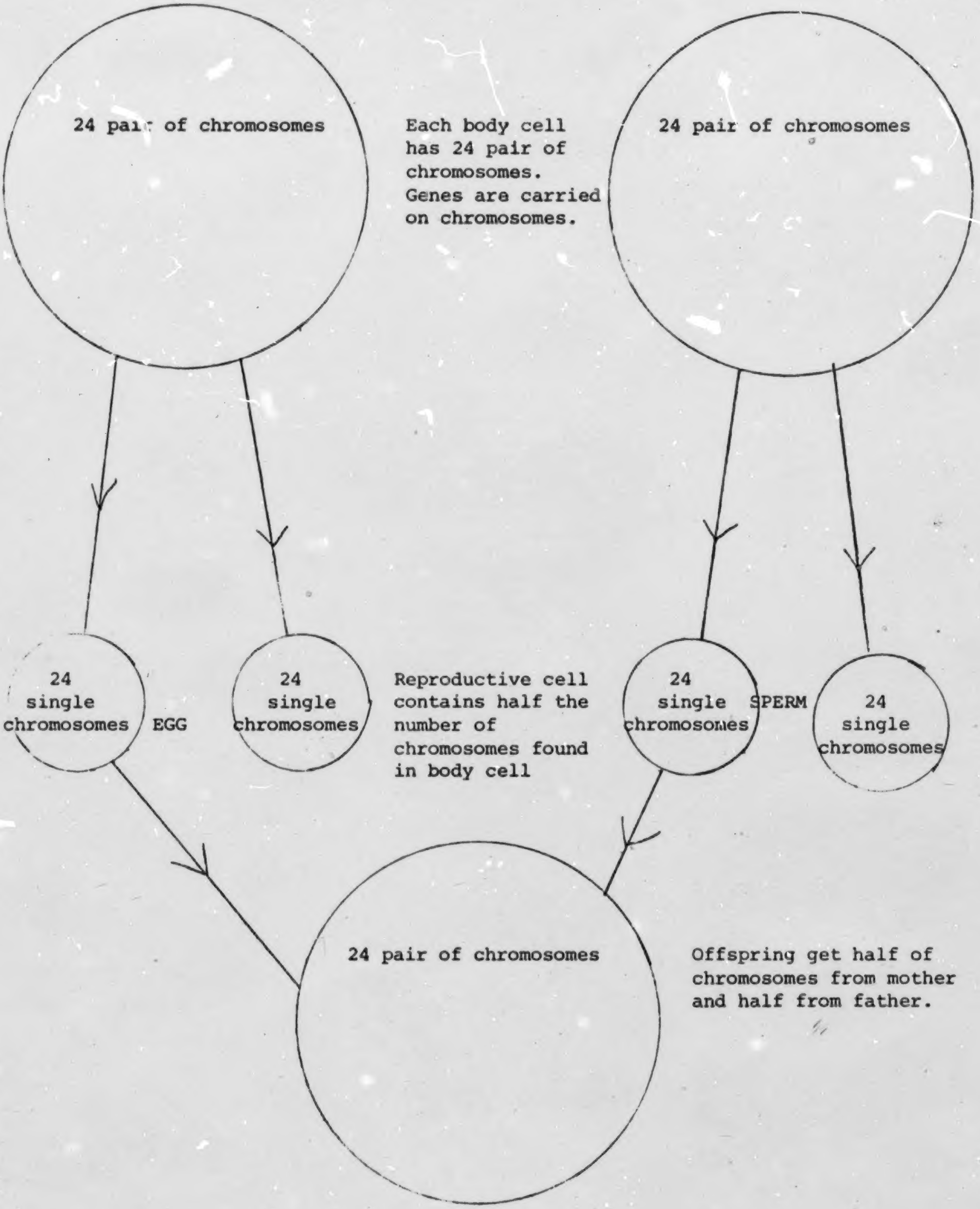
15. Explain the changing environment which brought about extinction of some animals, dinosaurs, fossils.

16. Observe mother and young for family characteristics (ducks, snakes, spiders, crabs).

17. List individually the physical characteristics that are similar to those of parents or grandparents.

18. Trace some special characteristics of your own family (i.e. eye color, curly hair, etc.).

19. Using the following diagram on blackboard or overhead, show children how we inherit half from each parent:



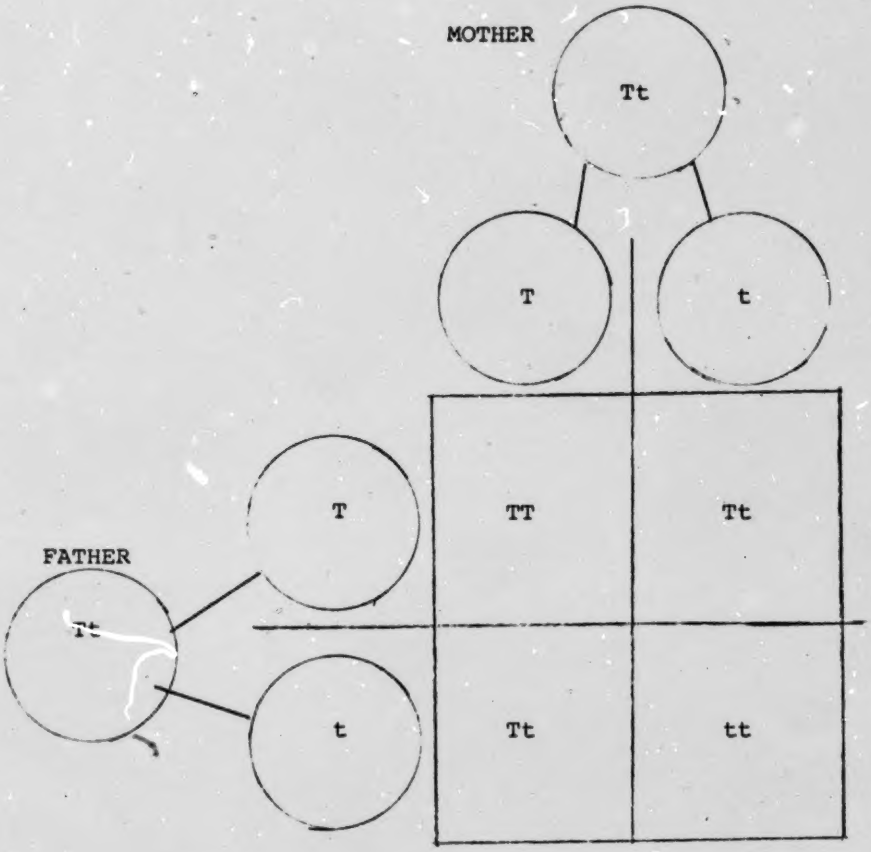
Each body cell has 24 pair of chromosomes. Genes are carried on chromosomes.

Reproductive cell contains half the number of chromosomes found in body cell

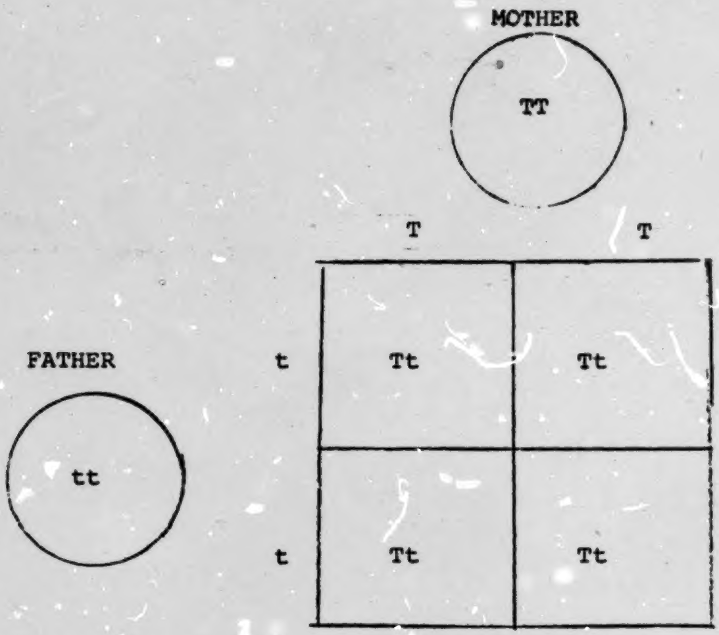
Offspring get half of chromosomes from mother and half from father.

20. Demonstrate (or have child) how to twist your tongue into a trough and tell the class that this is a characteristic that some of us inherit and some don't. You may want to predict that 75-80% of the class will be twisters (T) and the remaining non-twisters(t). Have each child demonstrate whether he is a twister and tally results. Since twisting ability is dominant about three-fourths of the total population are twisters and one-fourth are non-twisters. If the ones that can't twist feel bad about it, point out that they're rather special.

21. Use the following punnet square to show how tongue twisting ability is inherited. Point out that the ability to twist is dominant over not twisting so that a person having (Tt) genes for twisting be a twister, but carries a gene for not twisting.

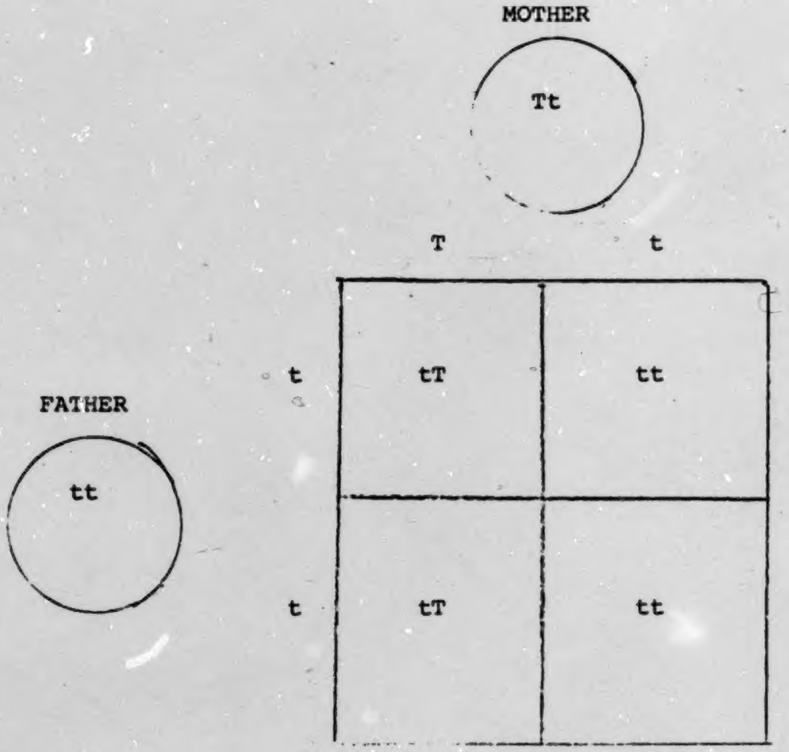


If mother Tt marries a a man with Tt and they have four children, the results may be as shown on the left. (The laws of probability obviously are a factor here). 3 children are twisters and 2 of them carry the trait for non-twisting and 1 child is a non-twister.



	T	T
t	Tt	Tt
t	Tt	Tt

All offspring are twisters and carry gene for non-twisting.



	T	t
t	tT	tt
t	tT	tt

2 children twisters and
2 children non-twisters.

Have children collect data on twisting and non-twisting from parents, grandparents, and brothers and sisters. (Point out that if child is adopted he could collect this data but it would have no validity for him.) Then have class use this data to help determine whether child is TT, Tt, or tt. Have individual children make class reports with teacher assisting with punnet square. Point out that many other things are inherited in a similar manner. Eye colors of blue and brown are inherited this way with brown being dominant. Many characteristics we inherit involve more than one pair of genes so investigating these is more complex.

RESOURCES

Books:

About Jerry and Jimmy and the Pharmacist, Frances B. Thompson; Melmont Publishers, Inc., Chicago, Illinois, 1964, 615
I

Doctor's Tools, Marguerite Rush Lerner, M.D.; Medical Books for Children, Lerner Publications, Inc., 241 First Avenue North, Minneapolis, Minnesota 55401, 1959, 610
L

Health and Growth, Scott, Foresman and Company, 1971

Junior Science Book of Trees, Garrard Press; Champaign, Illinois, 1960, 582
L

Film:

Human Heredity, BOCES #832-74, 12 minutes

ENVIRONMENTAL AND PUBLIC HEALTH

OVERVIEW

The dynamic growth of the United States economy and the constancy of technological advances have created a better life for all Americans and have radically altered the environment. This growth and advancement has also created new problems at a rate sometimes more rapid than control measures can be devised to deal with them. A rapidly increasingly population, air pollution, inadequate waste disposal, the development of synthetic organic chemicals, and the increasing use of radioactive substances are but a few of the developments that have imposed new problems in society.

There is no logic in polluting our environment and making it unfit for habitation. There is no sense in subjecting ourselves to the physical, mental and financial pressure which environmental pollution places upon our health and well-being. We need not endure a foul environment as the inevitable price of industrial growth and economic progress.

Since environment may be evaluated in terms of physiological and psychological responses of man to physical, chemical and biological stimuli, this unit will treat environment in terms of psycho-social and physical factors as they effect the individual. Students should explore and evaluate community affairs in order to realize that they are an integral part of the community and that they do affect the health conditions within the community.

Health problems in one part of the world have profound effects on other, sometimes distant and remote, parts of the world. On the international level, the World Health Organization seeks to promote, protect, and maintain human health everywhere by mobilizing resources to attack the world's most significant health problems.

OBJECTIVES

Suggested Pupil Outcomes:

1. Define the basic concepts relating to the environment.
2. Identify the elements within the natural environment that have the potential for being harmful.
3. Identify the potentially hazardous elements in our environment that are consequences of human influence.
4. Describe how man can protect against the various harmful effects of the environment.

5. Illustrate the physical limitations of our natural resources.

6. Define the need for being able to work with others to maintain a healthful environment.

7. Cite examples of actions that demonstrate the responsibility of the individual for preserving and enhancing the quality of his environment.

8. Analyze the role of the people in the family, school, community and nation that cooperate to protect the environment.

9. Demonstrate an understanding of the concept of ecological balance.

10. Analyze the relationship between man and his environment.

11. Explain how man has the ability to destroy or preserve the earth's beauty and benefits through thoughtless exploitation or effective planning and constructive action.

12. Describe how the contamination of the environment through abuse is a genuine threat to man's health and future existence.

13. Explain the effects of man's increasing consumption of an environment of finite natural resources.

14. Identify the disease-causing organisms and pests which are dangerous to man.

15. Recognize the contributions of various scientists throughout the world toward health.

16. Be aware that the health status of an area is related to the geographic location and the level of development of the area.

17. Identify the major international health organizations that contribute to health on a world-wide basis.

MAJOR CONCEPTS

1. The existence of man depends upon his interrelationships within the environment.
2. Our immediate surroundings, including the people in the surroundings, have an effect on us.
3. Human life depends on water and air.
4. Sanitary conditions are improved through the efforts of many interested groups.
5. Disposal of sewage or waste disposal can contribute to the transmission of disease.
6. We are dependent upon may people for safe water and air.
7. Radiation in the air has come to be considered a pollutant.
8. Several organizations and agencies help to prevent and control disease on a world-wide basis.
9. Disaster prevention is the concern of expert organizations.
10. People must be protected against diseases borne by food.

CONTENT OUTLINE

- I. Environmental Health in Review
  - A. History of early attempts at controlling environmental problems
  - B. The efforts of the Pioneers
  - C. Early public health measures
  - D. Scientists who have contributed to disease control (i.e. Lister, Jenner, Salk)

- II. Relationship Between Environment and Disease
  - A. Sharing our environment
  - B. Disease-causing organisms
  - C. Controlling the environment
  - D. Improving man's health status

- III. Water and Waste Disposal
  - A. The ways we use water
  - B. The sources of water
  - C. A look at water pollution
    - 1. Sources of pollutants
    - 2. Effects of pollutants on various living things
    - 3. Preventing pollutants from entering our water supplies
  - D. Sewage treatment
    - 1. City
    - 2. Rural
    - 3. Industrial
  - E. Individual responsibilities
  - F. Cooperative community efforts

- IV. Air and Air Pollution
  - A. Need for clean air
  - B. A look at air pollution
    - 1. Definition of air pollution
    - 2. Causes of pollutants entering our air
    - 3. Effects of air pollution
    - 4. Controlling the entrance of pollutants into our air
  - C. Radiation and radiological pollution
    - 1. The story of decay of radioactive substances
    - 2. Effects of radiation on living things
    - 3. Controlling radiological pollution

- V. Food
  - A. Old methods of handling food
  - B. Modern food handling techniques
  - C. Food laws
  - D. Milk sanitation
  - E. Pasteurization
  - F. Food contamination
  - G. Transmission of disease by food
  - H. Protecting our food supplies

VI. Insects and Rodents
   A. History of disease caused by insect vectors and rodents
   B. Scope of the present-day problems
   C. Modern control methods
   D. Community agencies responsible for control procedures
   E. Individual responsibility

VII. Garbage and Refuse Disposal
   A. Problems of accumulation
   B. Proper storage of substances to be disposed until collected
   C. Collection
   D. Modern disposal methods
   E. The individual's responsibility
   F. The community's responsibility

VIII. Maintaining a Healthy Environment
   A. Home
   B. School
   C. Community

IX. Community Agencies and Functions
   A. Health agencies with important roles to play
   B. Other agencies with health-related functions

X. International/World Health
   A. Organizations involved in maintenance and promotion of planetary health
      1. U.N.
      2. FAO
      3. WHO
      4. Red Cross
   B. Factors that influence health and disease
      1. Sources of water
      2. Sanitation
      3. Waste disposal
      4. Agricultural conditions
      5. Availability of products
      6. Availability of money
      7. Availability of medical care
      8. Climate
      9. Population
      10. Housing
   C. Disease indigenous to specific areas
   D. Present attempts at world health improvement

LEARNING AND EVALUATIVE ACTIVITES

1. Ask a sanitarian to discuss health and sanitation laws with your class.

2. Compare Red Cross programs in the United States with those in other countries.

3. Discuss the importance of immunization programs. Have a physician or nurse explain these programs to your class.

4. Explain about the source of radioactive particles (make this a basic explanation).

5. Invite local public health official to discuss the laws in your area which govern waste disposal.

6. Investigate the nature of air pollution and the role of the health department in this problem.

7. Pupils write reports on the methods of sewage disposal in the community and the problems related to these procedures.

8. Visit hospitals, restaurants, etc. to observe these laws being enforced.

9. Ask students to be aware of unsanitary practices or of heavily littered areas observed in the community. Have them determine if a law is being broken and if there is an agency to correct the problem.

10. Arrange a trip to a water treatment plant or to a conservation area. Class discussion on the variety of responsibilities in these areas. Discussion of federal, state and local laws concerning these areas.

11. Discuss how water becomes unfit to drink.

12. Have students write about the learning situation in an unsupervised classroom.

13. Write individual or group letters for information on rodent control, insect control, garbage disposal, etc. in your area.

14. Discuss the various methods by which disease organisms are transmitted - various vectors, etc.

15. Have students do research on the effectiveness of innovations in garbage disposal, i.e. shipping it from large cities to abandoned mines, covering with dirt and building communities upon it.

16. Discuss household and field pests (rats, mice, roaches, flies, other rodents).

17. Arrange a trip to sewage disposal plant. Discussion on local efforts to protect water (proximity of sewer lines to fresh water lines), water purification methods, recycling techniques.

18. List and discuss the atmospheric conditions which effect an individual's performance in daily activities (temperature, relative humidity, cloudy or bright).

19. Write an individual or group letter to the city water department requesting literature on how water is filtered and purified.

20. Research and report on a comparison of the threat from radiation as compared with the threat from automobile exhausts.

21. Attempt to secure a few journals from the World Health Organization (WHO). Have students read journals and then discuss the variety of diseases in the world, why certain areas have specific diseases that are not found elsewhere; have them use a world map to show these concentrations of certain diseases.

22. List and discuss the peripheral conditions which affect an individual's performance in daily activities (noise level, motion around him, odors, etc.).

23. Compare food waste in this country with that in other countries.

24. Have representatives of the American Red Cross and Civil Defense explain their role in such events as floods, tornadoes, fire, nuclear warfare, etc.

25. Plan an outdoor trip; investigate knowledge needed about environmental factors; what equipment would be required to maintain comfort?

26. Read about and discuss the history of disease prevention.

27. Discuss the efforts of the Atomic Energy Commission to maintain surveillance over the amounts of radiation to which the public is exposed.

28. Consult the local health officer and report on morbidity and mortality statistics of the community as related to air or water pollution. Compare statistics with those of large cities, industrialized area, etc.

29. Have interested students report on dehydrated foods.

30. Demonstrate to class how various foods absorb water.

31. Diagram and discuss the water cycle.

32. Discuss the work being done to prevent pollution in recreational and camping areas; have the students construct posters showing how they could help to maintain these areas.

33. Discuss how disease can be transmitted by pets.

34. Have students construct posters showing life cycles of flies, mosquitoes, and other disease vectors.

35. Construct a list of diseases for which vaccines are available and chart pupils in class who have been immunized for each.

36. Have students ask parents to help them check filters in air conditioners, humidifiers, stove hoods, furnaces, etc.

RESOURCES

Films:

The Animals Are Crying, BOCES #832-282, 15 minutes

Baby Rabbit, BOCES #831-309, 11 minutes

The End of One, BOCES #831-220, 7 minutes

Everglades (National Park), BOCES #831-361, 7 minutes

Growing, Growing, BOCES #831-276, 11 minutes

Inside/Out Series: BOCES (video cassettes), 15 minutes each
- Just One Place
- You Belong

The Lorax, BOCES #833-87, 24 minutes

Our Wilderness, BOCES #831-274, 10 minutes

Preserving Our American Wilderness, BOCES #831-275, 10 minutes

What Our Town Does for Us, BOCES #831-24, 11 minutes

Filmstrip and Cassette:

Wildlife Ecology, BOCES #392-6

CONSUMER HEALTH

OVERVIEW

Sound health is something we all desire, but cannot buy. Everyday we are faced with choices and decisions which represent our investment in health. The appraisal, selection and use of health information, products, and services influence one's state of physical, mental, and social well-being and comprise the instructional area of consumer health. The student consumer of today will be the adult consumer of tomorrow, and the patterns established early as a selector and purchaser may be unconsciously carried into later life. Purchasing habits should be based from the beginning on sound knowledge and criteria. Scientific fact, truth, and sound criteria must deal with half-truths, pseudo-science, false concepts and outright quackery.

Consumer organizations and governmental agencies are endeavoring to help the purchaser to learn how to spend money wisely and how to distinguish between useful and effective consumer products and those that may be useless or even harmful. The educated consumer is his own best protection.

One of every 30 persons employed in the United States works at maintaining the nation's health. The present need for health personnel is urgent! As our knowledge expands in the various health areas, the demand for people to supply health care will outstrip the supply for many years to come. The schools have an obligation as the critical force which can tip the balance in the direction of adequate health care for Americans through educational programs that guide and prepare students for health careers. Schools have a responsibility to be aware of and expose students to the full scope of educational opportunities and available resources to pursue in their regions. They should recognize that there is a place for all skills.

OBJECTIVES

Suggested Pupil Outcomes:

1. Describe the factors that determine when one should make use of health services.
2. Identify the factors that influence self-medication.
3. Analyze the functions of the Food and Drug Administration related to protecting the consumer.
4. Distinguish between prescription drugs and over-the-counter drugs.
5. Identify the characteristics of non-prescription drugs.

6. Distinguish between medical and non-medical health practitioners.

7. Evaluate the practice of using another person's medication.

8. Compare the functions of medical specialists with non-medical specialists.

9. Describe the characteristics of health quackery.

10. Develop criteria for making the most of one's health dollar.

11. Describe the nature of advertising and promotion practices.

12. List some purposes of advertising.

13. Analyze the aspect of truth in advertising.

14. Analyze criticisms of health advertising.

15. Describe ways in which false advertising is dangerous to the health consumer.

16. Identify misleading statements and claims in health advertising.

17. Evaluate the use of testimonials and guarantees in health advertising.

18. Evaluate deceptive packaging techniques and higher costs.

19. Identify techniques used by advertisers that take advantage of the psychological reactions of consumer groups.

20. Develop criteria for evaluating advertising and making better use of health dollars.

21. Demonstrate the use of guidelines for evaluating health advertising.

22. Relate emotions, family patterns, and values which influence the selection and use of health information, products and services.

23. Express an understanding of the roles, responsibilities and trainings required in health careers.

24. Cite not only the financial but the humanitarian rewards of health occupations.

25. Express an awareness of future opportunities in health careers.

26. Conclude that, although automation is becoming an important part of a health program, qualified personnel will be needed to interpret and act upon the data.

27. Determine that there are health careers for all types of skills, i.e. professional, technical, physical.

28. Appreciate the scientific progress in the field of health education which has presented new horizons and undreamed of frontiers to reshape our lives.

29. Cite some agencies, groups, laws, and standards that protect the health consumer.

30. Apply the information that harm can result from self-diagnosis, self-medication, and the unwise use of drugs, medicines, devices, cosmetics, and dietary supplements.

MAJOR CONCEPTS

1. Many health agencies and organizations serve, protect and inform the consumer.
2. Laws and regulations protect our health and health of others.
3. Evaluation of standards, health products and health services requires critical thinking.
4. Religious beliefs, customs, superstition, faddism, cults, and family influence consumer buying.
5. Professionally trained health specialists safeguard our health.
6. There are many different kinds of medical and health related specialists.
7. Emotions, family patterns and values influence selection and use of health information, products and services.
8. Consumer health involves wise judgment and selection of health information, products and services that pertain to health.
9. The quality of a product may mean spending more - a bargain is not always a saving of money.
10. Some health products are inferior or unneeded.
11. Accurate information on labels, in advertising and promotions, are consumer rights.
12. Unlimited opportunities are available in many fields under the broad spectrum of health careers for those students who are interested in richly rewarding occupations.
13. Health career opportunities can lead to great satisfactions that one receives from helping others.

CONTENT OUTLINE

- I. The Individual as a Health Consumer
  - A. What is a health consumer?
  - B. Who are health consumers?
  - C. How are health consumers important?
    - 1. Influence on the kinds of health services and products made available
    - 2. Prices of items are affected by consumer actions
    - 3. Influence on the quality of health services and products
  - D. What special problems do health consumers face?
    - 1. Deciding when to seek health services
    - 2. What health problems can be treated without visiting a doctor
      - a. Self-medication
      - b. The hazards of treating oneself for illnesses
    - 3. The Scientific Revolution
  - E. How to be an intelligent health consumer
    - 1. Purchasing and using drugs and medicines
      - a. Prescription medicines
      - b. Non-prescription medicines
        - 1. Labeling
        - 2. Limitations of use
        - 3. Other pertinent information
    - 2. Choosing medical and dental care
      - a. Types of medical doctors
      - b. Health-related specialists
      - c. Dentists
      - d. Other nonmedical health personnel
      - e. A look at how the health consumer can select his health advisor
        - 1. Sources of information
        - 2. Criteria for selection
    - 3. Making the most of the health dollar
      - a. Knowing what is needed before buying
      - b. Comparing values and checking the quality of products and services
      - c. Following the advice of your physician
      - d. Buying health products in sensible quantities
      - e. Watching for opportunities for buying or taking advantage of services or products
      - f. Keeping records of all costs of health purchases

- II. Ethics in Health Advertising and Promotion
  - A. Definitions of important terminology
    - 1. Advertising
    - 2. Promotion
  - B. The purposes of advertising
    - 1. Increasing consumer demand
    - 2. Educating the consumer
    - 3. Developing large-scale distribution

C. The responsibilities of advertisers to consumers
1. Advertising and truthful claims
2. Advertising messages in good taste
3. Advertisements and respect for the privacy of the individual
4. Advertising on labels and its accuracy
D. The responsibilities of advertisers to the industry
1. Respect for copyrights
2. Trademarks - their meaning and use
3. Advertisers and avoidance of the use of libelous statements
E. The advertising industry and control of the activities of its members

III. Undesirable Promotional and Advertising Techniques
A. General criticisms of health advertising
1. Claims are distorted beyond that which is approved in the products final printed labeling
2. Deceptive research claims
3. Encourage unnecessary purchases
4. Stimulate emotional rather than rational buying
5. Advertising increases the cost of health products
6. Advertising language is often confusing and meaningless
7. Health product ads often contain more half-truths than truths
8. Other criticisms
B. Deceptive health advertising
1. False advertising
a. Claims must be proven by manufacturers
b. Controlled by special agencies
c. Dangerous to health consumer
2. Misleading statements and claims
a. Pseudo-medical endorsement
b. Omission of facts
c. Peculiar use of words
3. Testimonials
4. Guarantees
5. Incomplete labeling
6. Deceptive packaging
7. Exploitation of special groups
a. Children
b. Teenagers
c. Older population
8. Other deceptive techniques
a. Fictitious bargain
b. The "favored few"
c. Bait advertising

C. How the consumer can evaluate health advertisements
  1. Information about the product should be known to the consumer
  2. Guides for evaluating health advertising and reaching decisions about purchasing products
    a. Does the product have demonstrated value?
    b. Of what does the product consist?
    c. Is the price comparable to other similar products?
    d. Is proof provided to substantiate the advertising claim?
    e. Is the product known to be harmless?
    f. Are evasive or unclear statements made?
    g. Does this advertisement have any special appeal?
    h. Do I need to buy this product?
    i. Does the advertiser resort to the use of testimonials?
    j. Do you get the impression (from the ad) that if you do not select this product, you won't be like other people?

IV. Governmental Agencies Which Deal With Consumer Health Protection
  A. Federal
  B. State
  C. Local

V. Is There a Career for You?

LEARNING AND EVALUATIVE ACTIVITIES

1. Select and review some of the pamphlets and publications related to consumer health with your parents.

2. Interview a representative of the Better Business Bureau as to gullibility of the American public and how the consumer is being protected.

3. Have children identify other medical specialists and tell what each does. (Examples: pediatrician, dermatologist, ophthalmologist, obstetrician.) Have children discuss their relationship with the pediatrician and the dentist.

4. Take a field trip to a local consumer agency, as Better Business Bureau.

5. Describe the role of the national and international agencies such as Food and Drug Administration, Federal Trade Commission, Department of Agriculture, Post Office Department, Health Departments, UNESCO, and the World Health Organization.

6. Analyze and appreciate the role of professional groups, such as the American Medical Association, The American Dental Association, voluntary groups as American Cancer Society and others.

7. Write a definition of what is meant by consumer health and health information, products and services.

8. Discuss the statement, "Everyone is a health consumer".

9. Have the class list some of the products that affect health; classify them as beneficial or harmful substances.

10. Invite the school nurse or physician to discuss what health services are needed by a family and how these may be secured.

11. Report amounts spent in the United States for amusement, cosmetics, alcoholic beverages, health services, education, vitamins, and other products. Contrast these figures and discuss their implications.

12. Compare contents of same product obtained at high and low prices and quality of items purchased in a discount store. Refer to book, THE MEDICINE SHOW.

13. Invite a physician to discuss his training, ethical standards, daily work, writing a prescription, and local requirements for a license to practice medicine.

14. Identify and describe the special work of different kinds of doctors. Pamphlet: "The Osteopathic Profession and Others". Class reports presented on allied health professions.

15. Have committee or individual report on how professional schools, agencies, and organizations work to keep health and medical specialists up-to-date on new information and practices.

16. Discuss what each specialist does and how each one's field of specialization relates to the other's.

17. Develop a criteria for selecting and purchasing personal health products by reviewing costs, claims, who recommends, selling motives, etc. Article: Today's Health - "Are You Wasting Your Money on Health Cosmetics?"

18. Tape record radio or television commercials relating to CHILDREN's health, and help children to evaluate and discuss advertising.

19. Make posters, bulletin board display highlighting the emotional appeals of advertised health products.

20. Develop a set of standards with the class for evaluating health products and services.

21. Display items or labels from products that are available in various "health food stores". Evaluate these items on the basis of standards.

22. Collect clippings of advertised products. Identify words that have emotional overtones, and point out ways people are influenced to buy and use these products. Make a class scrapbook or posters.

23. Display pictures of gadgets and devices or the real objects sold by quacks. These might be obtained from the Food and Drug Administration or other groups.

24. Construct posters illustrating various medical specialists and post them in the classroom and other school locations.

25. Develop a bulletin board for the nurse's office on health services available to students.

26. Develop a bulletin board display illustrating the health protection afforded by community agencies.

RESOURCES

Books:

About Jerry, Jimmy and the Pharmacist, Frances B. Thompson; Melmont Publishers, Inc., Chicago, Illinois, 1964, 615
T

Dentist's Tools, Carolyn Lapp; Medical Books for Children; Lerner Publications, Inc., 241 First Avenue North, Minneapolis, Minnesota 55401, 1961, 617.6
L

Doctor's Tools, Marguerite Rush Lerner, M.D.; Medical Books for Children; Lerner Publications, Inc., 241 First Avenue North, Minneapolis, Minnesota 55401, 1959, 610
L

Film:

Buy and Buy, (from Inside/Out Series), BOCES (video cassette), 15 minutes

Filmstrip and Cassette:

Witchcraft to Modern Medicine, BOCES #392-7

SAFETY, FIRST AID AND SURVIVAL EDUCATION

OVERVIEW

When a school has no accident for the school year, it is not an accident. It is the result of a good safety program. Accidents involving children, both at home and at school, are all too high. The automobile, adding to other hazards of modern living, has made accidents the leading cause of death among children and youth. Accident rates can and have been reduced. Myths such as "accidents just happen" only serve to stand in the way of diminishing pain and suffering.

Knowledge about what one is doing, whether it is how to do something or the limitations of an action or equipment, enters into accident prevention. Attitudes, some of which are not obvious, guide behavior and lead one into or away from hazardous situations.

Leadership for safety education and first aid must originate within the school through direct and indirect experiences. Indirect experiences come through living in a safe environment, both at work and in play. Direct experiences come though class instruction in safety and participation in student safety programs and organizations. Safety education and first aid must be given its rightful place in all classes, not in just one. Many non-school agencies and their resources can be used to enrich the overall program. The Fire Department, the Traffic Division of the Police Department, insurance companies and industrial safety engineers can all contribute to the basic school safety program. Life at school must be made as safe as possible and a planned program of safety education must be provided. An annual safety week program is not enough since habits, skills and desirable attitudes develop slowly. The challenge to the teacher is to provide experiences that will be both meaningful and continuous. A "No Accident School Year" can be made a reality.

OBJECTIVES

Suggested Pupil Outcomes:

1. Identify unsafe situations and learn to avoid them.
2. Identify common safety hazards in one's home, school and community.
3. Practice behavioral traits which will enhance the safety of oneself and others.
4. Define the specific roles of the people directly related to the promotion of safety in the school and community.

5. Identify areas of risk to individual and group safety that might occur specifically during holiday time.

6. Identify areas of risk to individual and group safety that might occur during a particular season of the year.

7. Define some hazards to the pedestrian, the bicyclist, the bus passenger, and the automobile passenger.

8. Describe the major responsibilities of being a pedestrian, a bicyclist, and a bus passenger.

9. Demonstrate courtesy with peers.

10. Define a selected number of school safety rules.

11. Contribute toward the development of a safe school environment.

12. Identify the hazards that relate to various daily activities.

13. Illustrate relationships between human behavior and accidents.

14. Relate precautions taken to the reduction of hazards and accidents.

15. List the emergencies which may occur during the course of daily living that would require first aid.

16. Demonstrate selected ways of preventing accidents to individuals, families, and community members.

17. Explain the "universal" first aid technique.

18. Demonstrate the effective use of first aid equipment.

19. Outline basic first aid procedures which help in saving lives and minimizing injury.

20. Use first aid techniques to combat different emergency situations.

21. Rank, with respect to immediacy of treatment, the injuries which may occur during emergencies.

22. Provide first aid when necessary.

23. Practice standard first aid procedures.

24. Practice mouth-to-mouth resuscitation.

MAJOR CONCEPTS

1. Increased freedom in play activities requires safety practices.
2. A knowledge of the cause and kind of accidents can help individuals plan for more responsible action.
3. School accident prevention depends on every individual.
4. Many home accidents can be eliminated by the action of individual family members.
5. The individual must assume responsibility for the safety of himself and others.
6. Fire prevention is part of civic and individual responsibility.
7. Knowledge and practice of safety rules in recreational activities helps prevent accidents.
8. Appropriate responses to hazardous and emergency situations should be studied and practiced.
9. A person must know what to do and what not to do and be able to carry it out in time of emergency in order to minimize human suffering and pain.
10. First aid is the immediate and temporary care rendered to a victim of an accident or sudden illness until medical aid can be obtained.
11. A person should know proper components and uses of survival and first aid kits.

CONTENT OUTLINE

- I. Traffic Safety
    - A. Traffic signs
    - B. Identifying accident causes
    - C. Pedestrian accidents
    - D. Safety patrol
    - E. Bicycle
    - F. Traffic regulations
    - G. Seat belts

- II. School Bus Safety
    - A. Basic rules for bus drivers
    - B. Safety regulations for school buses
    - C. Serving the school bus patrol

- III. Safety in and Around the Water
    - A. Swimming can be fun
    - B. Boating and safety regulations
    - C. Water skiing and safety precautions

- IV. Safety with Fire
    - A. Matches and their proper use and storage
    - B. Some common liquids that can burn
    - C. Community efforts in fire protection
    - D. Man-made causes of fires
    - E. Proper procedures to follow in case of fire
        - 1. The fire drill at school and at home
        - 2. Plans for each specific area of the school and home

- V. Home Safety
    - A. Falls and their prevention
    - B. Burns and scalds and how to avoid them
    - C. Poisoning (gas)
    - D. Poisoning (solid and liquid)
    - E. Electrical problems and emergencies
        - 1. Safety devices
        - 2. Signs of trouble
    - F. Other miscellaneous home hazards

- VI. School Safety
    - A. Classroom environment
    - B. Corridors and stairs need to be kept safe
    - C. School grounds and play equipment safety precautions
    - D. Laboratory and safety rules
    - E. Auditorium and rules of conduct
    - F. Gymnasium safety
    - G. Lavatory behavior

VII. Outdoor Safety
- A. Winter sports activities
  - 1. Safe ice skating
  - 2. Safety on the ski slopes
  - 3. Sledding and tobogganing
- B. Summer sports
  - 1. Baseball
  - 2. Kite flying
  - 3. Camping and hiking
  - 4. Nature's hazards
    - a. Snakes
    - b. Poisonous plants
    - c. Thunder and lightning storms

VIII. Survival Education
- A. Survival kit
  - 1. Components
  - 2. Proper uses
  - 3. Provision for carrying at appropriate times
- B. First aid kit
  - 1. Proper components
  - 2. Proper uses
- C. Survival in natural disasters
  - 1. Storms, hurricanes, tornadoes
  - 2. Floods
  - 3. Earthquakes

IX. Basic First Aid
- A. Basic principles
  - 1. Sending for help
  - 2. Providing for comfort and safety of victim within limits
- B. Control of bleeding
  - 1. Types of bleeding
    - a. Nosebleed
    - b. Cuts
    - c. Puncture wounds
  - 2. Methods of control
    - a. Direct pressure
    - b. Application of cold packs
- C. Contusions (bruises) and sprains
  - 1. Application of cold pack
  - 2. Disinfection in case of abrasions
- D. Possible fractures and fractures
  - 1. Do not move patient
  - 2. Immobilize the part
  - 2. Keep victim warm
- E. Burns
  - 1. Heat induced
    - a. Cold water
    - b. Degrees of burns
  - 2. Chemical burns
    - a. Wash immediately
    - b. Acids and bases
    - c. See doctor as soon as possible

F. Exposure to cold
    1. Movement to restore circulation
    2. Gradual warming
G. Poison
    1. Get help immediately
        a. Poison control center
        b. Physician or hospital
    2. Look for kind of poison
    3. Leave poison sources for medical person's observation
H. Insect bites and stings
    1. Wash
    2. Disinfect
    3. Seek medical help if necessary
I. Animal bites
    1. Wash and disinfect
    2. Get professional help
J. Know how to contact help
    1. Doctor
    2. Police, fire or emergency squad
    3. Poison Control Center (if near one)

LEARNING AND EVALUATIVE ACTIVITIES

1. Compare current traffic laws with those of the 1920's to see how they've been changed to keep up with modern life.

2. Bring in newspaper accounts of accidents and have discussion period to try and determine causes and prevention.

3. Discuss close calls, and minor accidents happening to students. Note how some minor accidents become major ones and how to prevent them from happening again.

4. Have a member of local police department explain rules and regulations concerning equipment and operation of bicycle.

5. Have bicycle inspection at school to determine if properly equipped, licensed and registered.

6. Have a bicycle safety court.

7. Keep a record of bicycle accidents and how they could have been prevented.

8. Discuss practices which will avoid accidents due to these hazards. Make up appropriate slogans and posters for display.

9. Demonstrate to younger children proper use of fountains, ways of going up and down stairs, safe use of playground equipment.

10. Draw up a plan of grounds and buildings, pointing out areas considered unsafe.

11. Organize a "clean-up the playground" period to remove hazardous objects.

12. Discuss and list safety rules for equipment used on your school playground and in sports activities.

13. Collect and discuss news articles on home accidents and ways in which these accidents might have been prevented.

14. Make a card for home use listing telephone number of fire and police departments, ambulance, family doctor, nearest relative, and poison control center.

15. Collect data on the causes of fires in homes, public buildings and forests.

16. Invite an electrician from the power company to discuss electrical hazards with the class.

17. Correspond with insurance companies to determine the number of home falls and how this rates with other accidents involving relatives and close friends.

18. Discuss the following in relation to camping; fire hazards, drinking water, axe and knife safety, hiking, poisonous plants, wild animals, getting lost in woods, keeping and leaving a clean campsite.

19. Participate in the following activities pertaining to boating:
    Make posters of boating laws and regulations. Invite an authorized person in to explain the rules and regulations.
    List dangerous boating areas and conditions in your area.
    Collect newspaper clippings about boating accidents and discuss them.
    Make a model of a boat showing.
    Develop a glossary or vocabulary list of useful boating terms.
    Discuss with an authorized person how a boat should be handled safely, including overloading, standing up, etc.

20. Investigate where swimming lessons are being given in the community, and discuss swimming safety including the following:
    The need for knowing how to swim well.
    Having supervision whenever young people are swimming.
    Safety procedures for diving, using inflated devices, swimming in ocean or surf.
    Demonstrate various non-swimmer rescue techniques.
    Describe buddy system.
    Staying in water too long and swimming after eating.
    Getting a suntan and going barefoot.

21. Anticipate seasonal fire hazards in your locale and list by the season.

22. Investigate and discuss accident statistics and traffic hazards in your neighborhood. Construct a graph to display on board.

23. Study and graph accidents in pupils' homes for 5-6 month period. Compare with graphs for national accidents. Discuss how different locales have different hazards.

24. Prepare self-test or pretest for other grades on pedestrian, bicycle and skateboard traffic safety.

25. Show how changes in our way of living bring about new hazards and how old hazards disappear (curling irons, drying hair in oven, being kicked by horse, using ice picks, kerosene lamps, etc.).

26. Discuss the hazards associated with large crowds.

27. Have bicycle check to see that bikes are properly identified and parked.

28. Develop a simple check list and conduct survey for hazards in buildings, on grounds, student conduct, etc.

29. Write a short essay on school safety.

30. Prepare original plays involving safety rules and precautions.

31. Make cartoon drawings depicting safety at home.

32. Complete a home fire hazard check list and make as many corrections as possible.

33. Prepare an exhibit of hazardous objects or materials found in homes such as metal toys with sharp edges, rugs without rubber backing, oily rags improperly stored, and easily accessible poisonous substances.

34. Participate in fire drills. Discuss ways to improve fire drills. Notice location of fire safety equipment in building.

35. Display of recreational equipment such as canoe, gun, skates, sled, skis, bat, fish hook, etc.; select one item and write good safety practices for using that item.

36. Make posters of swimming rules.

37. Put up bulletin board display illustrating safe swimming practices.

38. Write a report on local swimming areas.

39. Demonstrate what to do and what not to do when someone else is in trouble in the water.

40. Make a list or gather examples of as many types of fire extinguishers as you can. Find out the types of fire for which each one is most effective.

41. Discover means of personal protection in case of fire.

42. Gather news clippings about recent fires. Try to determine how they could have been avoided.

43. Prepare a display of fire fighting equipment.

44. Research and report on the history of fire fighting.

45. Investigate modern-day methods of controlling fires.

46. Conduct experiments on the physical and chemical principles of fire.

47. Make a list of important telephone numbers for use in emergency.

48. Collect newspaper clippings about accidents. Discuss first aid procedures that might have been used in each situation.

49. Plan a first aid kit for home, automobile, camping, or hiking.

50. Analyze accidents reported in newspapers and describe how they might have been prevented.

51. Invite a nurse or physician to speak to class about importance of first aid and basic procedures.

52. Plan a demonstration of the proper method of artificial respiration.

53. Have a first aid quiz contest.

54. Discuss how, by using improper action, additional damage may be done to an injured person.

55. Discuss pupils' camp experiences in relation to first aid in emergencies.

56. Have a demonstation of techniques by boy scouts and girl scouts who are qualified in first aid.

57. Keep a first aid kit in the classroom and have a "first-aider" elected each week or two from the class, who observes procedures for "caring for" minor emergencies.

58. Discuss and practice safety procedures for your school, for natural phenomena which might occur in your immediate area.

59. Discuss the increased likelihood of accidents due to inclement weather.

60. Invite Civil Defense or Red Cross speaker to discuss your community's readiness for emergencies or visit local Civil Defense shelter.

61. Make a bulletin board display of natural emergencies and what would be needed in each of these emergencies.

62. Have local emergency unit members in to explain their functions.

63. Have a health department representative explain the importance of health during an emergency.

64. Prepare lists of foods, clothing, medicine, and equipment needed for an emergency.

65. Discuss how your school is involved in the community Civil Defense program.

66. Learn the meaning of the various Civil Defense signals and post directions at home and at school.

67. Interview parents and neighbors to find out how well informed the community is on civil defense.

68. Refer to American Red Cross Jr., Standard and Advanced first aid courses and the Medical Self-Help program for content and learning experiences. Give consideration to grade level and maturity of children in presentation.

69. First aid is easily integrated into other health units, i.e. first aid for burns can come into a unit including the skin and sunburn; first aid for eye injuries can tie into a unit on sensory organs.

70. Johnson and Johnson has had Behavioral Research Laboratories at Palo Alto, California write a programmed First Aid text. Because this is such an excellent teaching tool, is interesting to sixth graders and also so closely parallels the content outline, it is recommended as the "text" for this unit - particularly of the sixth grade level.

71. Cut up old sheets or other fabric 36" x 36", then cut diagonally to make 2 triangular bandages. A total of about 40 is adequate for a class of 30 children. Demonstrate hand, knee, foot, and head bandages, and arm sling with triangular bandages. Demonstrate splinting with magazines, corrugated cardboard and padded wood strips; use with triangular bandages. Have the children practice in groups of two or three.

72. Create situations including the use of victims that requires first aid. Make-believe blood and artificial wounds are available commercially and from BOCES to make the situation more real. Spell out to the class the situations you are creating. For instance - the victim is bleeding, he is unconscious, but is breathing normally. Then have children render first aid in groups of two.

73. Obtain a resusci-doll from Civil Defense or BOCES and demonstrate its use having the children practice in groups of two. Use instructions that are included. While children are practicing, check the respiration rate - 16 - 18 is about right. Let everybody have a chance to practice. Select a child that does quite well practicing mouth-to-mouth resuscitation. Have him demonstrate on a resusci-doll for a 30-minute period without resting. The need for steady rate that is not too fast will be obvious. Have class discussion to find out what it was like. For instance, did the child selected get tired?

RESOURCES

Books:

Bicycle Songs of Safety, Jill and Lawrence Grossman; Holt, Rinehart, and Winston, Inc., 1964, 784
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First-Aid: A Programmed Text, B. Haller Igel; Instructional Materials Lab, 18 East 41st Street, New York, New York 10017

FIRST AID
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FIRST AID COURSE by Johnson & Johnson. Classroom Sets consist of 30 117-page Programmed Textbooks, 30 Test Booklets, 30 Safety Check Lists, Teacher's Manual, color film strip, classroom demonstration kit of first aid products, 30 course completion cards and achievement certificates. Adjunct Sets (as a supplement for a class larger than 30) consist of 10 Programmed Textbooks, 10 Test Booklets, 10 Safety Check Lists and 10 course completion cards. From Instructional Materials Laboratories Inc., 18 E. 41st St., New York, N.Y. 10017.
—Classroom Set $12, postpaid — Adjunct Set $4, postpaid

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—— Bill Me   —— Bill My School

Pamphlets:

Family Guide: Emergency Health Care, BOCES #P-29

First-Aid Manual, BOCES #P-28

Guide for Self-Help and Neighbor-Help for the Injured, BOCES #P-31

In Time of Emergency, BOCES #P-26

What To Do In A Disaster, BOCES #P-30

Leaflets from Civil Defense - ground to air distress signals

LIST OF FREE BICYCLE SAFETY MATERIAL

Bicycle Blue Book, The Goodyear Tire and Rubber Company, Akron, Ohio 44316

"Bicycle Drill Team", Instructor, February, 1973; P.O. Box 6099, Duluth, New Mexico 55806

"Bicycle Safety Packet", Bicycle Institute of America, 122 East 42nd Street, New York, New York 10017

"Bicycle Safety Packet", Cycling Activities Department, 1856 North Kostner Avenue, Chicago, Illinois 60639

"Bicycle Safety Packet", Deutsche Verkehrswacht, Plantanenweg, Bonn/Beuel, West Germany

"Bicycle Safety Packet", National Safety Council, 425 North Michigan Avenue, Chicago, Illinois 60611

"Instructor Safety Poster", Instructor, April, 1973

"Safe Living", A K-6 Scope and Sequence Booklet, Board of Cooperative Educational Services, 125 Jericho Turnpike, Jericho, New York 11753

"Safety Action; Traffic and Pedestrian Safety. A Guide for Teachers in the Elementary Schools", ERIC*, Ed 051 164. Delaware State Department of Public Instruction, Dover; Department of Transportation, Washington, D.C., EDRS Price MF-$0.65, HC-$3.29

"Safety Education; Grades 4, 5, and 6. Strand V, Education for Survival", ERIC*, ED 037 740. New York State Education Department, Albany. Bureau of Elementary Curriculum Development, EDRS Price MF-$0.25, HC-$2.75

"School Pedestrian Safety", SCOPE, P.O. Box 254, Oakdale, New York 11769 Price: $8.50

Films:

A Chance To Save a Life, Boy Scout Office, Central Avenue, Cortland, or Civil Defense Office, Court House

And Then It Happened, BOCES #832-229, 18 minutes

Can I Help?, (from *Inside/Out Series*), BOCES (video cassette), 15 minutes

Liquids Can Burn, BOCES #832-319, 13 minutes

One Got Fat, BOCES #832-200, 15 minutes

Safe In the Water, BOCES #832-332, 15 minutes

School Bus Safety With Strings Attached, BOCES #843-25, 28 minutes

Shelter Construction In Winter, BOCES #832-235, 14 minutes

Survival Kit Part I, BOCES #831-329, 10 minutes

Survival Kit Part II, BOCES #831-330, 10 minutes

Kits:

Practoplasts, BOCES #123-21

Resusci-Anne, BOCES #123-20